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Cover motif: The beetle *Geloptera jugalaris* (Coleoptera: Chrysomelidae), found to be responsible for defoliation of dieback-affected *C. monticola* plants.

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Notes on the Mammals Collected on the *Chevert* Expedition, to New Guinea, in 1875

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Fulton, G.R. (2018). Notes on the mammals collected on the *Chevert* Expedition, to New Guinea, in 1875. *Proceedings of the Linnean Society of New South Wales*,**140**, 1-6.

The mammals collected on the *Chevert* Expedition in 1875 are discussed on the basis of information in William Macleay's journal, Lawrence Hargrave's diary and old newspaper articles. William Petterd's published reports give the collection location of the type specimen of *Isoodon macrourus moresbyensis*. Other collections are discussed, including kangaroos *Dorcopsis luctuosa* and *Macropus agilis* specimens of which reside in the Macleay Museum but cannot be confirmed as collected by the *Chevert* Expedition. Rodents, including Bramble Cay Melomys, *Melomys rubicola,* have been added to the list of mammals originally reported by Edward Pierson Ramsay.

Manuscript received 10 November 2017, accepted for publication 20 December 2017.

Keywords: Edward Pierson Ramsay, Hall Sound, *Isoodon macrourus moresbyensis*, *Melomys rubicola*, Port Moresby, William Macleay, William Petterd.

INTRODUCTION

The *Chevert* Expedition, financed and led by William Macleay, collected natural history specimens and ethnographical artefacts from the islands off north Queensland, the Torres Strait Islands and New Guinea (Figure 1). The expedition was undertaken in 1875 yet many of the different collections have not been fully identified: for example, Thomas Reedy's plant collections have only recently been discussed (Fulton 2016a). The expedition was considered successful and collected approximately 1,000 birds, 800 fish, and many reptiles, mammals, insects, spiders, marine molluscs and ethnographic objects for the Macleay Museum's collections (Macleay 1875; Fletcher 1893; Fulton 2012).

In New Guinea, the *Chevert* Expedition collected at Katow, Yule Island and Hall Sound. No collections were made at Port Moresby. Specimens from Port Moresby were collected by those who returned to New Guinea after the conclusion of the *Chevert* expedition: Lawrence Hargrave, Dr William James, Felix Knight, William Petterd and Kendall Broadbent. Most collections from this location were by Petterd and Broadbent. They collected at Port Moresby from October 29, 1875, until January 26, 1876. James and Knight collected at Port Moresby until November 4, 1875 (Hargrave's diary) and afterwards at Yule Island and Hall Sound until August 23, 1876 (Fulton 2017a).

Ramsay published the mammals of the *Chevert* Expedition in 1877 (Ramsay 1877a). However, through correspondence with the Macleay Museum and careful reading of a series of unpublished documents and newspaper articles, I have extended the list of mammals collected from Ramsay's initial publication and identified inconsistencies in other publications. My sources include William Macleay's journal; Lawrence Hargraves diary; newspaper articles written by the ship's captain, Charles Edwards, and by the zoological collector William Petterd.

RESULTS

Fifteen mammalian taxa collected on the *Chevert* expedition have been identified (Table 1).

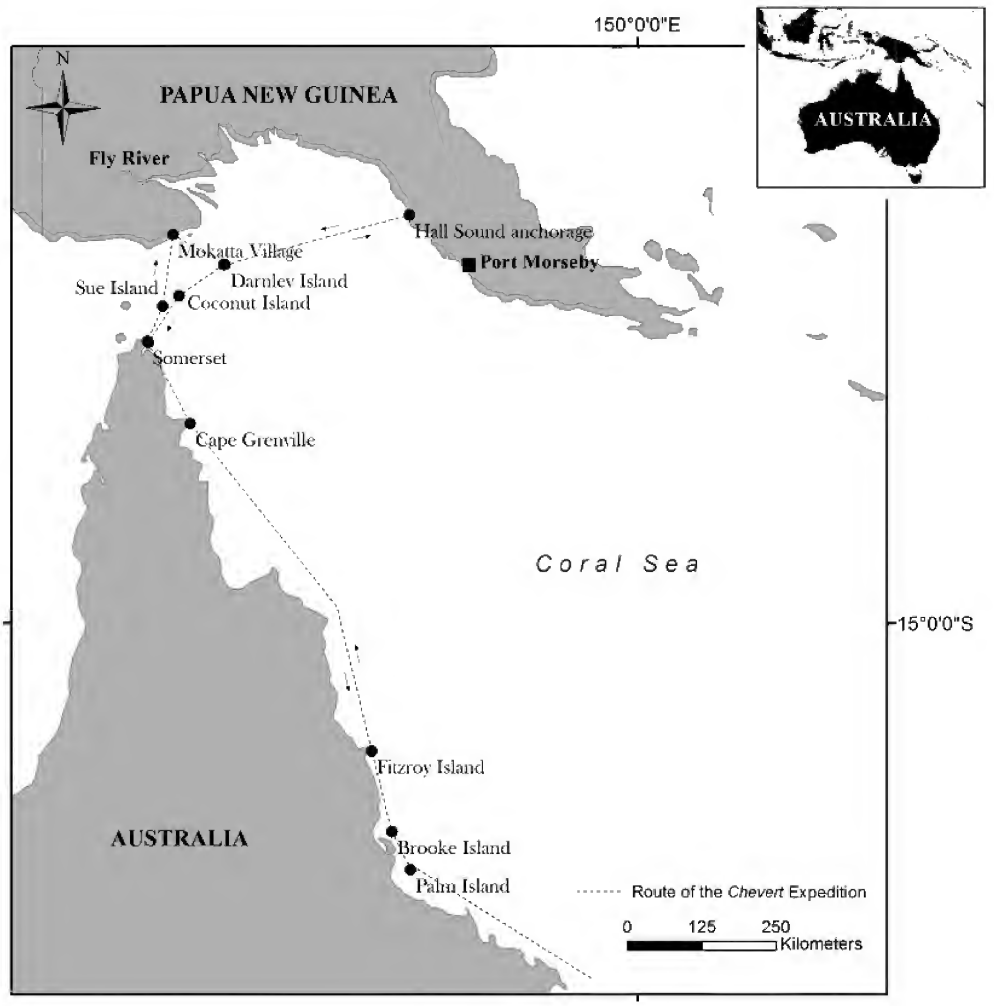

Figure 1. The 1875 voyage of the *Chevert* showing collecting points and the general direction of travel.

DISCUSSION

Type specimens

Stanbury (1969) stated that six mammalian types were collected on the *Chevert* Expedition, citing Macmillan, (1957), a semi-fictional work. Macmillan made only passing reference to three mammalian collections that included: "a large flying-fox" collected at Yule Island (p. 124), an unknown rat at Bramble Cay (p. 120) and an "opossum" from the Ethel River (p. 126). None were suggested to be type specimens, nor did Macmillan discuss the natural history collections with any authority. None of Macmillan's mammals were regarded as types by Stanbury (1969) and four of the six types specified by Stanbury were collected by Andrew Goldie after the *Chevert* and published later by Nicholai de Miklouho-Maclay (Miklouho-Maclay 1884; 1885). Only two of Stanbury's types, were collected on the *Chevert* expedition: the Allied Rock-wallaby *Petrogale assimilis* (see Ramsay, 1877b and also Fulton 2016b) and the Large-Eared Flying-Fox (subspecies) *Pteropus macrotis epularius* Ramsay, 1877a.

Ramsay (1877a) described a new species of Bandicoot from the *Chevert*: the Port Moresby

Table 1. Mammalian taxa collected during the *Chevert* Expedition of 1875. Current taxonomy follows Jackson and Groves (2015) for Australian taxa and Wilson and Reeder (2005) for Papua New Guinea taxa. The question mark (?) is to underscore uncertainty.

Taxa	Initially published as	Locality
PERAMELIDAE		
Northern Brown Bandicoot *Isoodon macrourus torosus*	Tawny-throated Bandicoot *Perameles macroura* (var.) *torosus* Ramsay 1877a, p 12	near Cooktown
Northern Brown Bandicoot *Isoodon macrourus moresbyensis*	Port Moresby Bandicoot *P. moresbyensis* Ramsay 1877a, p 14	no location by Ramsay: Petterd states Hall Sound
ACROBATIDAE		
Feather-tailed Possum *Distoechurus pennatus*	*Phalangista pinnata* Ramsay 1877a, p 12	Ethel River
PETAURIDAE		
Sugar Glider *Petaurus breviceps papuanus*	Flying Phalanger *Belideus ariel* Ramsay 1877a, p 12	Katow (Now Mawatta near the mouth of the Binaturi River)
PHALANGERIDAE		
Australian Common Spotted Cuscus *Spilocuscus nudicaudatus*	*Cuscus maculatus* Ramsay 1877a, p 11	Cape York
Common Spotted Cuscus *Spilocuscus maculatus*	*C. brevicaudatus* Ramsay 1877a, p 12	no location by Ramsay: original label: Hall Sound, New Guinea
MACROPODIDAE		
Gray Dorcopsis *Dorcopsis luctuosa*	*Dorcorpis luetuosus* [*sic*] Petterd 1876	Hall Sound?
Agile Wallaby *Notamacropus agilis papuanus*		Hall Sound?
Allied Rock-wallaby *Petrogale assimilis*	*Macropus assimilis* Ramsay 1877a, p 11	Palm Island
PTEROPODIDAE		
Northern Blossom-bat *Macroglossus minimus*	Kiodote *M. minimus* Ramsay 1877a, p 10	Katow (Now Mawatta near the mouth of the Binaturi River)
Black Flying-fox *Pteropus alecto*	Red-naped Kalong *P. funereus* Ramsay 1877a, p 8	Cape York & Bet Island
Spectacled Flying-fox *Pteropus conspicillatus*	*P. conspicillatus Ramsay 1877a, p 7*	Rockingham Bay & Yule Island
Large-Eared Flying-fox *Pteropus macrotis epularius*	*P. epularius* Ramsay 1877a, p 10	Katow (Now Mawatta near the mouth of the Binaturi River)
EMBALLONURIDAE		
Coastal Sheath-tailed Bat *Taphozous australis*	North Australian Cave Bat *T. australis* Ramsay 1877a, p 10	Cape York
MURIDAE		
Bramble Cay Melomys *Melomys rubicola*	large rats Edwards 1875; Fulton 2016	Bramble Cay
large rodents (specimens not found)	*Hapalotis* sp. Macleay's journal 27 June 1875, collected by Spalding and Petterd	Shallow Bay, Cape York
Mus sp.	Unpublished; collected 21 July 1875, museum label	Long Island (Now Sassie Island)

Bandicoot *Perameles moresbyensis* now known as *Isoodon macrourus moresbyensis* and a new variant *P. macroura* (var.) *torosus* now known as *I. macrourus torosus*. Parnaby et al. (2017) suggested the latter *I. macrourus torosus* may not have been collected on the *Chevert* expedition. Based on a close reading of William Macleay's personal journals, I found that the *Chevert* did not collect at Cooktown and I conclude that this specimen was most likely collected by Edward Spalding, for Macleay, on an earlier trip.

Missing and confused locations

Ramsay (1877a) did not specify locations for two species: the Common Spotted Cuscus *Spilocuscus maculatus*, (Ramsay's *Cuscus brevicaudatus*) and the Port Moresby Bandicoot *Isoodon macrourus moresbyensis*, though the former is resolved by its original label as Hall Sound, New Guinea. The latter, the Port Moresby Bandicoot, was collected at Port Moresby, its common name providing a good clue. It was collected at Port Moresby by Petterd and Broadbent who always collected together around Port Moresby (Hargrave's diary). Petterd reported it in the first of four newspaper publications in 1876. He wrote, "A *Parameles* is found at Port Moresby allied to an Australian species" (Petterd 1876a). Petterd was less clear about the cuscus, "*Cuscus maculatus* [Common Spotted Cuscus *Spilocuscus maculatus*] (along with *Belideus ariel* [Sugar Glider *Petaurus breviceps*]) are common to both places" (Petterd 1876a). ["Both places" refers to Australia and New Guinea in his article.] Ramsay also reported, "Several specimens from Cape York" (Ramsay 1877a). At least one of these is known to have been collected by Dr James during the expedition (Fulton 2017a).

Petterd's *Belideus ariel* [Sugar Glider] was reported from Katow by Ramsay. He later noted, "I believe this is the only species of this genus yet found in New Guinea" (Ramsay 1877a), indicating that only one species was procured on the expedition. He also wrote, "This species was obtained at Katow, and is also found at Port Moresby." By the time Ramsay published on the zoology of the *Chevert* (1877a), he would have known of the mammals collected at Port Moresby by Petterd and Broadbent. Petterd erroneously reported the Sugar Glider from the Ethel River, Hall Sound, "We also got the nest with mother and young of that pretty little flying squirrel *Belideus ariel*" (Petterd 1876b). This was the Feather-tailed Possum *Distoechurus pennatus* published by Ramsay as "*Phalangista pinnata*… Adults and young of this pretty species were obtained on the Ethel River, New Guinea" (Ramsay 1877a). Ramsay may have known of its occurrence from Port Moresby through specimens collected after the *Chevert* expedition. While at Port Moresby, Hargrave reported getting "3… flying squirrels, very pretty and vicious" (Hargrave's diary).

Macropodidae

Petterd wrote more on the mammalian collections in a second article entitled Hall Sound (Petterd 1876b), distinct from two following articles entitled Port Moresby (Petterd 1876c; 1876d). Petterd wrote,

> "The zoology of this part of New Guinea was particularly interesting to us, for here we met with many forms we had not seen before, and quite different to anything found in Australia. The animals are not numerous—that is, specifically, but abundant individually. Two species of wallaby, one the *Dorcorpis luetuosus* (*sic*) discovered by Signor D'Albertis, and the *Cuscus maculatus*, have been got here. *Belideus ariel*, a *Parameles*, and several kinds of the smaller mammals were also obtained" (Petterd 1876b).

It is difficult to match these general comments with collections. The two species of kangaroo are likely to have been collected during the expedition, particularly given that they were abundant. Yet this cannot be confirmed at present. Both species reside in the Macleay Museum: Gray Dorcopsis *Dorcopsis luctuosa* and Agile Wallaby *Macropus agilis* and are currently thought to have been collected at Port Moresby. Petterd also published the following about the collections at Port Moresby indicating that the mammals were present at both locations. With reference to Port Moresby:

> "The principal mammal hunted and used as food is the kangaroo, which is very plentiful on the other side of the coast range" (Petterd 1876c).

With reference to the *Chevert* at Hall Sound:

> "The mammals are the same as those of Hall Sound" (Petterd 1876d).

I can see no reason why Macleay's collectors would have ignored collecting these two kangaroos at Hall Sound. Adding to the uncertainty, Macleay (1875) made the general statement: "We were not fortunate in procuring many of the mammals; but, kangaroos of various sizes and genera appeared to be abundant and we saw specimens of *Cuscus*, *Belideus*, and other *Phalangers*." The *Chevert* did collect the latter three mentioned taxa. While the first half of the sentence suggests no kangaroos were collected the second half reports only seeing taxa that were clearly collected. In the absence of known specimens I conclude that macropods were not collected.

Muridae

Ramsay (1877a) did not publish on the Muridae collected by the *Chevert*. Perhaps the rodents collected were not presented to Ramsay. Three collections have since come to light. The first is in the Macleay Museum with two specimens of *Mus* sp., spirit and skeletal, presumed from a single animal, collected at Long Island [now Sassie Island]. The second is the Bramble Cay Melomys *Melomys rubicola*. It was originally and simply reported as a large rat by Captain Edwards (Edwards 1875) and has now been identified and discussed (Fulton 2016c; 2017b). Thirdly, two rodents (presumably the same taxon) were collected by Spalding and Petterd, at Somerset (Cape York) on June 24, 1875. Macleay described them as, "two specimens of a species of *Hapalotis*" (Macleay 1875: personal journal dated June 25). *Hapalotis* was used as a catch-all for large Australian rodents in Macleay's time and does not point to a specific taxon. These might be *Uromys caudimaculatus* or *Mesembriomys gouldii* (pers. comm. Kristofer Helgen). The presence of the rodents collected by the *Chevert* was confirmed, though without detail, by Macleay in his very brief summary of the mammals seen on the voyage, "a few *muridae*" (Macleay 1875).

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Norfolk Island Quarantine Survey 2012-2014 – a Comprehensive Assessment of an Isolated Subtropical Island

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Maynard, G.V., Lepschi, B.J. and Malfroy, S.F. (2018). Norfolk Island quarantine survey 2012-2014 – a comprehensive assessment of an isolated subtropical island. *Proceedings of the Linnean Society of New South Wales* **140**, 7-243

A survey of Norfolk Island, Australia was carried out during 2012-2014 to develop a baseline of information on plant pests, and diseases and parasites of domestic animals for biosecurity purposes. The Norfolk Island Quarantine Survey covered introduced vascular plants, invertebrate pests of plants and animals; plant pathogens; pests and diseases of bees, and diseases and parasites of domestic animals. 1747 species were recorded across all organism groups during the course of the survey, of which 658 are newly recorded for Norfolk Island. Details of all organisms recorded during the survey are presented, along with a bibliography of plants and animals of Norfolk Island, with particular reference to introduced taxa.

Manuscript received 25 July 2017, accepted for publication 30 January 2018.

KEYWORDS: animal diseases, bees, invertebrates, Norfolk Island, plant biosecurity, plant pathogens, plant pests, quarantine survey.

INTRODUCTION

The Norfolk Island group (-29°02'S 167°57'E) is an Australian territory situated approximately 1400 km directly east of Evans Head on the Australian mainland. It is comprised of three small islands, the main island - Norfolk Island, with two smaller uninhabited islands - Nepean Island, 1 km to the south, and Philip Island 6 km to the south (Fig. 1). Prior to July 2015 Norfolk Island was an external, self-governing territory, with independent biosecurity laws, but subsequent reforms have led to a return to Australian Commonwealth administration of Norfolk Island. Up until July 2016 Norfolk Island managed

Fig. 1: Philip and Nepean Islands as viewed from Kingston Norfolk Island looking south

the biosecurity of the island separately to the mainland under its own jurisdiction and regulations. The application of these regulations meant that very few plants, animals and their products were permitted to enter Norfolk Island for nearly 40 years. During this time, the only plant products moved onto the island on a regular basis were ginger, onions, garlic and potatoes; additionally, there were significant restrictions on the import of seeds and whole plants. In recent years there has been an interest to have the ability to move a wider range of plants and plant products to the island. To enable the safe movement of plants, animals and their products between the mainland of Australia (including Tasmania) [or elsewhere] and Norfolk Island, and visa versa; information was required on the plant and animal pest and disease status of Norfolk Island. A survey that spanned seasons and years was required to establish a baseline of data on the plant and animal health status of Norfolk Island. It documented what pests and diseases are present on the island and what was absent, hence the significant difference between the island and the rest of Australia. These data are being used to determine potential pest and disease threats that the mainland of Australia and Tasmania pose to Norfolk Island and, conversely, what pest and disease threats Norfolk Island may pose to the mainland of Australia and Tasmania. Furthermore from mid-July 2016, there has been the extension of Australian (Commonwealth) biosecurity regulation to Norfolk Island and the removal of the existing Norfolk Island regulations. The results of the data collected during the survey work are presented here.

To achieve this, during 2012-2014 a series of surveys, the Norfolk Island Quarantine Survey (NIQS), were conducted on the Norfolk Island group (primarily on Norfolk Island with some sampling on Philip Island). The purpose of these surveys was to provide a baseline of data on which appropriate measures for the biosecurity border management for both export and import could be developed. Target groups of organisms for the survey included weeds (terrestrial vascular plants only), plant pathogens, invertebrate plant and animal pests, mammalian diseases and some diseases in selected bird species. The survey was broad ranging in its application, and unusual in both its repeated nature, covering all seasons over a span of two years, as well as a primary focus as a baseline for biosecurity research, rather than being triggered by an incursion of a pest or pathogen. The survey work did not include the marine environment.

Literature on the animals and plants of Norfolk Island varies significantly from taxon to taxon and is often difficult to access. In part, this is as per usual for scientific endeavours published in different discipline areas; however, it is compounded by a considerable amount of information being in either unpublished government reports or privately published (i.e. 'grey' literature). For some taxa such as plants, existing information is quite detailed and extensive, and in this regard the survey was less intensive and served to complement available information on introduced plants on Norfolk Island (excluding Nepean and Philip Islands), whereas in other groups, such as mites, there is almost no pre-existing information. Hence, given the issues indicated above, to assist in facilitating access to information on the fauna and flora of Norfolk Island, an extensive list of references is provided in this document to complement the survey data.

Norfolk and Philip Islands are the weathered remnants of volcanoes on the Norfolk Ridge linking New Caledonia and New Zealand. Soils are uniformly deep volcanics overlying basalt (Jones and McDougall 1973). Nepean Island was formed from windblown sand dunes during the last two ice ages (Anon. 2003). Norfolk Island is the largest of the Norfolk Island group at 32 km^2 and has a subtropical climate with an average rainfall of around 1300 mm per year (falling throughout the year but mostly in June and July) and an average temperature range of 12-20° C in winter, and 19-25° C in summer (BOM 2015) [a mild climate with good rainfall]. Pre-European vegetation of the island comprised subtropical rainforest (Figs 2, 3, 4), but this has largely been cleared, with exception of that now mostly conserved in Norfolk Island National Park (approximately 462 ha, including Philip and Nepean Islands). The remainder of the island is rural

Fig. 2: Norfolk Island coastal habitat

Fig. 3: Norfolk cordyline habitat

Fig. 4: Norfolk Island pine (*Araucaria heterophylla* (Salisb.) Franco [Pinales: Araucariaceae]) habitat

to rural-residential, with cattle grazing and vegetable production some of the main land-based rural industries. The majority of fresh fruit and vegetables required by the population are produced on the island and very few imports are permitted.

Philip Island is entirely national park, being declared as an extension to Norfolk Island National Park in 1996. Prior to the early 1980s it was almost completely denuded of vegetation, and eroded by the effects of introduced pigs, goats and rabbits, all of which have been subject to intensive eradication programs. A revegetation program was instigated in the 1980s, with aerial seeding of Norfolk Island pines, followed by direct plantings of a range of Norfolk Island native plants. Regeneration is ongoing (R.Ward pers. comm.). Nepean Island is similarly included in Norfolk Island National Park. Pre-European vegetation comprised an open forest of *Araucaria heterophylla* (Salisb.) Franco (Norfolk Island pine), but this was entirely cleared by the mid 19th Century (Anon. 2003).

The biota of Norfolk Island comprises approximately 566 vascular plant species (430 introduced), 116 birds species (including 11 introduced and 66 vagrant species), 10 mammal species (all introduced) as well as many invertebrates and plant pathogens. This survey provides a unique and comprehensive biosecurity data set for a small, subtropical, western Pacific island.

MATERIALS AND METHODS

The Norfolk Island Quarantine Survey was managed by the Australian Government Department of Agriculture. A summary of the methodologies is included below. Greater detail can be obtained from the unpublished *Norfolk Island Quarantine Survey Technical Report* of the Australian Government Department of Agriculture 2015 [this can be provided on request]. For all organisms, sampling was conducted across Norfolk Island in urban, rural and 'natural' environments (Fig. 5). Survey work on Philip Island consisted of two, one-day sampling trips: bird faecal material in February 2014, non-fungal plant pathogens in November 2014 and one, two-day sampling trip for invertebrates and plant fungal pathogens in October 2014. Techniques used for sampling was dependent on the target taxon. All the data were consolidated into spreadsheets and a database.

Introduced vascular plants

Due to the large body of existing data on vascular plants for Norfolk Island, surveys for this component of the biota were less extensive. Two surveys of two weeks duration were undertaken, once in Spring 2013 and Autumn 2014, focusing on the naturalised taxa. Species known only from cultivation as crops or amenity plantings were not specifically targeted during the survey. Specimens were collected using standard

Fig. 5: Survey staff inspecting felled Norfolk Island pine for infestations

herbarium specimen collection techniques, pressed and dried on Norfolk Island prior to being transported to quarantine containment facilities on mainland Australia for morphological identification. A review of the existing literature relating to introduced plants on Norfolk Island was also undertaken. Specimens are lodged in the Australian National Herbarium, Canberra (CANB), with duplicates in New Zealand (primarily AK, also CHR and WELT) and Australian herbaria as appropriate. Herbarium codes follow *Index Herbariorum* (Thiers 2015).

Invertebrates

Invertebrate collections primarily targeted plant pests; however, collections for vectors and pests of animals as well as incidentals were also undertaken. A target list of 42 plant species (Table 1, pp 18-19) provided the focus of all invertebrate surveys. A series of six, seven day surveys were undertaken (two during separate summers and separate springs, and one each during winter and autumn) during 2012-2014. Techniques included hand inspection (Fig. 5), beating, sweep netting, yellow pan traps, light traps, traps with lights and a source of CO2, lure baited traps (Qfly, medfly, papaya fruit fly, BezziLure™, LuciLure™) and Berlese funnels. Specimens collected were stored in ethanol or set and pinned for later identification. Identification was primarily morphologically-based, with the use of molecular diagnostics as appropriate. All invertebrate specimens (apart from molluscs) are lodged in the Australian National Insect Collection (ANIC), Canberra. The molluscs have been deposited in the Australian Museum, Sydney.

European honey bees

Methodologies and sampling of European honey bees (*Apis mellifera* Linnaeus, 1758) (Fig. 6) largely followed protocols outlined by the World Organisation for Animal Health (OIE). European honey bees were introduced into Norfolk Island sometime in the 19th century (they were introduced into mainland Australia in 1822 and it is thought that sometime after this, bees were taken from mainland Australia to Norfolk Island) with no import of live bees and only new bee keeping equipment imported to the island for the past 40 years, hence limited exposure to bee pests and diseases in the recent past. The indigenous bee fauna of Norfolk Island appears to be depauperate with only three species of solitary native bees having been recorded from Norfolk Island (one by Naumann (1990), one by this survey and one subsequent to the survey). However, it should be noted that this may not be a true reflection of the extent of the bee fauna of Norfolk Island as no targeted surveys for native bees have been undertaken, and the adults of bees so far recorded are normally only on the wing for a few weeks in the year. Solitary bees are not considered likely to be reservoirs of European honey bee pests or pathogens. Surveys of 25 target pests and diseases of European honey bees were conducted during the spring of 2013, with follow up surveys in 2014. Over 6000 individual bees were sampled mostly from managed hives, with additional material taken from active and abandoned feral nests. The bees were collected by hand. Notes on the conditions of the hives and bees were taken. The samples were either preserved in 70% ethanol or frozen and taken back to the mainland under permit and held in a quarantine containment facility where morphological and molecular diagnostics were undertaken.

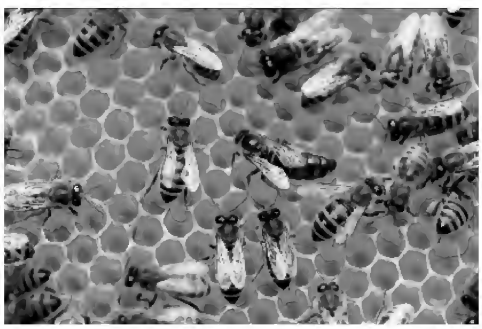

Fig. 6: Queen bee (*Apis mellifera* Linnaeus, 1758 [Hymenoptera: Apidae]) with workers on comb, Norfolk Island

Fungal plant pathogens

Fungal plant pathogens were surveyed by sampling of plant parts from target taxa. A target list of 42 plant species (Table 1, pp 18-19) provided the focus of all fungal plant pathogen surveys. A series of six, seven day surveys were undertaken (two during separate summers and separate springs, and one each during winter and autumn) during 2012-2014. Plant material was pressed and dried on Norfolk Island and subsequently transported to mainland Australia under a biosecurity permit to a quarantine containment facility where molecular analyses and morphological diagnostics were undertaken. Fungal plant pathogen specimens have been lodged in the Queensland Department of Agriculture and Fisheries Plant Pathology Herbarium Brisbane (BRIP).

Non-fungal plant pathogens

Non-fungal plant pathogens were surveyed by sampling of plant parts from target taxa. A target list of 42 plant species (Table 1, pp 18-19) provided

the focus of all non-fungal plant pathogen surveys. A series of six, seven day surveys were undertaken (two during separate summers and separate springs, and one each during winter and autumn) during 2012-2014. Plant material was shredded into fine particles and dehydrated by low heat drying and silica gel before transport to quarantine containment facilities on mainland Australia for molecular testing. Field symptoms were also noted. Specimens of plant pathogen bacteria and viruses are lodged in Queensland Department of Agriculture and Fisheries Plant Pathology Herbarium Brisbane (BRIP).

Vertebrates – veterinary diseases and pests

Norfolk Island has no extant native mammals. Two species of bats, previously known from the island, are now considered extinct. Currently there are 10 species of mammal occurring on the island. Tests were undertaken for the presence of diseases in cattle, sheep, pigs, cats, horses and dogs, and an assessment of veterinary records was also undertaken. Goats are also present on Norfolk Island, but no tests were carried out on these animals, as they were not present at the beginning of the survey, arriving from the Australian mainland mid-way through the survey program. The animals had also undergone mandatory testing prior to arrival.

The main vertebrate fauna consists of birds, there are around 30 species native (many of which are migratory seabirds) and 10 introduced species. Sampling for avian influenza and/or avian tuberculosis was conducted on a range of native and introduced wild birds (Figs 7, 8). Testing was undertaken as per Manual of Diagnostic Tests and Vaccines for terrestrial Animals of the OIE (OIE 2013b). In addition to the survey, historical reports of previous animal health surveys, records of importations to Norfolk Island, current regulations with regards to importations, and the presence or absence of known insect or other arthropod vectors of various diseases were also considered.

RESULTS

1747 species were recorded across all organism groups during the course of the survey, of which 658 are newly recorded for Norfolk Island. This number will increase as new species are described from specimens collected during the survey, particularly in insect and fungal pathogen groups. Three hundred and six species of naturalised vascular plants were recorded (289 collected (Table 2A, pp 20-30), 17 observed but not collected (Table 2B, p. 31), 56 of which were new records for Norfolk Island. A further 124 species have been recorded by other authors, but were not collected or observed during the NIQS survey (Table 2C, pp 32-34). The naturalised flora of Norfolk Island now totals 430 species (Tables 2A-C, pp 20-34). Of the species recorded during the survey, five are not known to be naturalised elsewhere in Australia (*Cynoglossum amabile* Stapf & J.R.Drumm., *Howea forsteriana* (C.Moore & F.Muell.) Becc., *Iberis umbellata* L., *Metrosideros kermadecensis* W.R.B.Oliv. and *Salvia coccinea* Juss. ex Murray group cultivars), although all are commonly cultivated, at least in southern Australia (see Spencer 1995-2005).

Fig. 7: Green parrot (*Cyanoramphus cooki* (G.R. Gray, 1859) [Psittaciformes: Psittacidae|), Norfolk Island

Fig. 8: White capped noddy (*Anous minutus* Boie, 1844 [Charadriiformes: Laridae|) nesting Philip Island, Norfolk Island group

Approximately 1200 species of indigenous (e.g. larvae of endemic longicorn beetles found in Norfolk Island pine; Fig. 9) and introduced invertebrates were recorded, of which over 400 are newly recorded for Norfolk Island, with at least 145 of these not known from elsewhere in Australia. A number of undescribed

Fig. 9: *Enicodes fichteli* (Schreibers, 1802) [Coleoptera: Cerambycidae] larvae, endemic Norfolk Island longicorn beetle, in felled Norfolk Island Pine with bark peeled to expose larvae

species of many groups were collected, as well as many taxa that remain to be fully taxonomically resolved (Table 3, pp 35-177). A single bee virus (Lake Sinai virus 1) at low levels, the microsporidian *Nosema ceranae* I.Fr., F.Feng, J.A.da Silva, S.B.Slemenda & N.J.Pieniazek and the lesser wax moth (*Achroia grisella* (Fabricius, 1794)) were detected in Norfolk Island European honey bee populations, which were otherwise found to be extremely healthy. All these taxa are known to occur in Australia. No pesticides, antibiotics or other interventions are used to manage bees on Norfolk Island. There have been no imports of European honey bees to the Island since 1992, and only new bee keeping materials are permitted (Table 4, pp 178-196).

Twenty-four plant viruses (plus a number of taxa that were not able to be fully resolved) were recorded during the NIQS survey, all of which were newly recorded for Norfolk Island (Table 5, pp 197-205). All but *Alstroemeria mosaic virus* and *Veltheimia mosaic virus* are also known to occur elsewhere in Australia. Two species of plant bacterial pathogens (both new records for Norfolk Island) were recorded, one of which (*Candidatus* Liberibacter solacearum) is not known to occur in elsewhere Australia (Table 5, pp 197-205). Approximately 180 species of plant pathogenic fungi were recorded during the survey, of which 129 were newly recorded for Norfolk Island and 29 are putative new species. There are 24 species of plant pathogenic fungi that were recorded on Norfolk Island that are currently not known to occur elsewhere in Australia (Table 6, pp 206-235).

Diseases of vertebrates detected during the survey included *Bovine viral diarrhoea virus1*, *Mycobacterium bovis* Karlson & Lessel, infectious bovine rhinotracheitis (*Bovine herpesvirus 1*), *Leptospira pomona* (cattle), *Porcine circovirus 2* (pigs), *Equid herpesvirus type 1* (horses), *Influenza A virus*, *Infectious bursal disease virus*, *Newcastle disease virus* (chickens) and feline immunodeficiency virus and *Felid herpesvirus 1* (cats), all of which are known to occur elsewhere in Australia (Table 7, pp 236-243). Five species of disease-vector mosquitoes (*Aedes antipodeus* (Edwards, 1920), *Culex pervigilans* Bergroth, 1889, *Culex quinquefasciatus* Say, 1823, *Aedes* (*Halaedes*) *australis* (Erichson, 1842) and *Aedes* (*Rampamyia*) *notoscriptus* (Skuse, 1889)) were also collected, all of which (with the exception of *Aedes antipodeus* and *Culex pervigilans*) also occur elsewhere in Australia.

DISCUSSION

The Norfolk Island Quarantine Survey provides a robust baseline of data of animal and plant pests and diseases occurring on Norfolk Island, hence providing a valuable aid for biosecurity decisions. This provides not only a foundation for management for the development of quarantine measures between Norfolk Island and mainland Australia, but also an extensive data set, which can be used for a number of other scientific endeavours. For example, contrary to expectations at the beginning of the survey, which predicted a relatively limited number of introduced species representing a fairly stable biota, due to the relatively small size of Norfolk Island and its uniform, benign climate, the survey revealed a high species diversity and significant fluctuations and instability in some invertebrate populations. An example of this is the extreme fluctuations in the populations of *Bactericera cockerelli* ulc, 1909 (tomato potato psyllid) which ranged from almost undetectable to extremely high populations back to almost undetectable within a span of three years (survey and post survey work by Thomas and colleagues). The survey also revealed a diverse and (apparently) increasing introduced vascular flora. Such observations are only possible through repeated surveys over subsequent years, to allow sampling of seasonal and other temporal variances.

Historical records of plant and animal pests and diseases on Norfolk Island are uneven, with some groups almost unknown and others with considerable amounts of information available. Most records of invertebrate species prior to the survey (with the exception of Lepidoptera), were the result of brief, single visits by collectors, occasionally followed up by a subsequent visit. NIQS surveys have revealed a much greater diversity of species than expected. For example, prior to the surveys there were only

three species of thrips recorded from Norfolk Island, while at the conclusion of the survey over 60 species have been recorded from Norfolk Island (Mound and Wells 2015). However, several of these species were recorded only during one survey period, a few in high numbers, and then never recorded again despite subsequent extensive searches on the same hosts at the same time of year. Similarly, differential population densities were observed for some scale insect species on Norfolk Island when compared to mainland Australia, in that some species common across a range of host species on mainland Australia were uncommon on the same host species on Norfolk Island. Also notable were many of the adventive scale insect species, otherwise common on mainland Australia, that were not recorded during the NIQS survey, including *Aonidiella aurantii* (Maskell, 1879), *Aspidiotus destructor* Signoret, 1869 and *Chrysomphalus aonidium* (Linnaeus, 1758). The cause(s) of these differences in faunal composition and relative frequency is presently unknown. While the vascular flora of Norfolk Island is relatively well known, NIQS surveys confirmed the presence of a number of previously unrecorded species, indicating continued incursions and/or naturalisation of weedy taxa. Conversely, a number of introduced taxa recorded by earlier authors (Table 2C), were not recorded during the surveys. Some of these taxa have been the target of eradication campaigns, whereas others may represent casual naturalisations that have not persisted. Such changes in floristic composition, while not unexpected, reinforce the need for close, continued management of naturalised plants on Norfolk Island, especially with regard to management or eradication of potentially serious new incursions. Comprehensive data is also now available for plant pathogens on Norfolk Island, with particular reference to those affecting agricultural and/or amenity plants. Prior to the NIQS surveys, there was very limited knowledge of plant pathogens on Norfolk Island, much of it in difficult to access 'grey' literature. Survey results reveal relatively few plant pathogens on Norfolk Island, reflecting the restricted movement of plant material onto Norfolk Island from all sources.

Norfolk Island is particularly vulnerable to pests and diseases due to its small size and relatively uniform environment, such that if a pest or disease establishes, it is likely to very rapidly disperse island-wide. Additionally, due to the nature of the island terrain (hilly with numerous inaccessible areas that are heavily vegetated), control or eradication is difficult, if not impossible. Norfolk Island's biological isolation (for terrestrial organisms) with over 600 km between the Norfolk Island group and the nearest land mass (New Caledonia), means that the primary pathway for many of pests is via imported plants or animals. The absence of many species of quarantine concern on Norfolk Island, which are otherwise present in Australia, is likely to be due the current controls in place for movement of plant and animal material.

Note that since the completion of the NIQS, Norfolk Island has had incursions of two significant plant pests: a fungal pathogen, myrtle rust (*Puccinia psidii* G.Winter) and an insect, date seed borer (*Coccotrypes dactyliperda* (Fabricius, 1801)).

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ETHICS STATEMENT

Routine veterinary work was conducted by registered veterinarians. The collection, euthanising and necropsy of mutton birds was conducted under an animal ethics permit granted by the University of Sydney to Richard Rubira, permits under the Environment Protection and Biodiversity Conservation Act (1999) granted by the Commonwealth Department of the Environment and permits granted by the Norfolk Island Administration. The collection, euthanising and necropsy of feral ducks and geese was conducted under a Permit to Carry Out a Controlled Activity in a Public Reserve (Permit No. 782) under the Public Reserves Act (1997) of the Norfolk Island Administration. Dead Crimson Rosellas were provided by the National Parks and Wildlife Service as a result of a feral pest eradication campaign. Other introduced\feral bird species were exempt from permit requirements under the Norfolk Island Government Schedule of Unprotected Birds.

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Table 1. Norfolk Island Quarantine Survey- plant target list for invertebrate and plant pathogen surveys

Family	Species
Alliaceae	*Allium ampleoprasum* L. (leek), *Allium fistulosum* L. (spring onion), *Allium schoenoprasum* L. (chive)
Chenopodiaceae	*Beta vulgaris* L. (silverbeet, beetroot), *Chenopodium album* L. (fat hen), *Spinacia oleracea* L. (spinach)
Anacardiaceae	*Mangifera indica* L. (mango)
Apiaceae	*Anethum graveloens* L. (dill), *Apium graveolens* L. (celery), *Coriandrum sativum* L. (coriander), *Daucus carota* L. (carrot), *Foeniculum vulgare* Mill. (fennel), *Petroselinum crispum* (Mill.) Fuss (parsley)
Apocynaceae	*Plumeria* L. (frangipani)
Araucariaceae	*Araucaria heterophylla* (Salisb.) Franco (Norfolk Island pine)
Arecaceae	*Howea* Becc. (Lord Howe Island palm), *Rhopalostylis baueri* (Seem.) H.Wend. & Drude (Norfolk Island palm)
Asparagaceae	*Cordyline obtecta* (Graham) Baker (ti)
Asteraceae	*Chrysanthemum* ×*morifolium* Ramat., *Gerbera* L., *Lactuca sativa* L.(lettuce), *Senecio australis* Willd., *Senecio hooglandii* Belcher
Brassicaceae	*Brassica oleracea* L. (Asian greens, cabbage, broccoli), *Brassica rapa* L. (turnip, bok choy)
Bromeliaceae	*Ananas comosus* (L.) Merr. (pineapple)
Capparaceae	*Capparis nobilis* (Endl.) F.Muell. ex Benth. (devil's guts)
Caricaceae	*Carica papaya* L. (papaya, paw paw)
Convolvulaceae	*Ipomoea batatas* (L.) Lam. (sweet potato)
Cucurbitaceae	*Citrullus lanatus* var. *lanatus* (Thunb.) Matsum. & Nakai (watermelon), *Cucurbita maxima* Lam. (pumpkin), *Cucumis sativus* L. (cucumber)
Cyatheaceae	*Cyathea brownii* Domin (Norfolk Island tree fern)
Dennstaedtiaceae	*Hypolepis dicksonioides* (Endl.) Hook (downy ground fern)
Euphorbiaceae	*Acalypha* L., *Baloghia inophylla* (G.Forst.) P.S.Green (brush bloodwood), *Euphorbia peplus* L. (petty spurge)
Fabaceae	*Medicago sativa* L. (lucerne), *Phaseolus vulgaris* L. (bean), *Trifolium repens* L. (white clover), *Vicia faba* L. (broad bean, faba bean)
Lamiaceae	*Mentha* L. (mint), *Rosmarinus officinalis* L. (rosemary), *Salvia officinalis* L. (sage)
Lauraceae	*Persea americana* Mill. (avocado)
Loranthaceae	*Ileostylus micranthus* (Hook.f.) Tiegh. (mistletoe)
Malvaceae	*Hibiscus insularis* Endl. (Philip Island Hibiscus), *Hibiscus rosa-sinensis* L. (Chinese hibiscus), *Lagunaria patersonia* (Andrews) G.Don (white oak)
Meliaceae	*Dysoxylum bijugum* (Labill.) Seem. (sharkwood)
Mimosaceae	*Acacia* Mill.
Moraceae	*Streblus pendulinus* (Endl.) F.Muell. (whalebone tree)
Musaceae	*Musa* L. (banana, plantains)
Myrtaceae	*Eucalyptus* L'Hér., *Eugenia uniflora* L. (Surinam cherry), *Psidium* L. spp. (guava)
Oleaceae	*Ligustrum* L. (privet)
Oxalidaceae	*Oxalis* L. (oxalis, soursob)
Pasifloraceae	*Passiflora edulis* Sims (passionfruit)
Piperaceae	*Macropiper excelsum* (G.Forst.) Miq. (kava)
Pittosporaceae	*Meryta angustifolia* (Endl.) Seem, *Pittosporum bracteolatum* Endl. (oleander)
Poaceae	*Cenchrus clandestinus* (Hochst. ex Chiov.) (kikuyu grass), *Digitaria ciliaris* (Retz.) Koeler (summer grass), *Sorghum halepense* (L.) Pers. (Johnson grass), *Zea mays* L. (maize)
Primulaceae	*Rapanea ralstoniae* P.S.Green (beech)
Psilotaceae	*Tmesipteris norfolkensis* P.S.Green (hanging fork fern)
Rosaceae	*Eriobotrya japonica* (Thunb.) Lindl. (loquat), *Fragaria* ×*annanssa* (Weston) Duchesne ex Rozier (strawberry), *Malus* Mill. (apple), *Prunus persica* (L.) Batsch (peach, nectarine), *Rhaphiolepis umbellata* (Thunb.) Makino, *Rosa* L. (rose), *Rubus* L.

Rubiaceae	*Coffea* L. (coffee)
Rutaceae	*Citrus ×aurantiifolia* (Christm.) Swingle (lime), *Citrus ×limon* (L.) Osbeck (lemon), *Citrus reticulata* Blanco (mandarin), *Citrus sinensis* (L.) Osbeck (orange), *Melicope littoralis* (Endl.) T.G.Hartley (shade tree), *Zanthoxylum pinnatum* (J.R.Forst. & G.Forst.) W.R.B.Oliv. (little yellow wood)
Solanaceae	*Solanum lycopersicum* L. (tomato), *Nicandra physalodes* (apple of Peru) (L.) Gaertn., *Solanum tuberosum* L. (potato), *Nicotiana tabacum* L. (tobacco), other Solanaceae species
Sterculiaceae	*Ungeria floribunda* Schott & Endl. (bastard oak)
Verbenaceae	*Lantana camara* L. (lantana)
Violaceae	*Melicytus ramiflorus* J.R.Forst. & G.Forst. (whiteywood)

Table 2A. Norfolk Island Quarantine Survey – vascular plants (collected)

Latitude	Longitude	Collection identification number	Date	Target family	Target taxon
-29.04	167.99	CANB 874062	25/9/2013	Acanthaceae	*Hypoestes aristata* (Vahl) Sol. ex Roem. & Schult.
-29.04	167.94	CANB 874121	27/9/2013	Acanthaceae	*Hypoestes phyllostachya* Baker
-29.03	167.95	CANB 874359	25/2/2014	Acanthaceae	*Ruellia* L.
-29.03	167.97	CANB 874333	22/2/2014	Alismataceae	*Hydrocleys nymphoides* (Humb. & Bonpl. ex Willd.) Buchenau
-29.04	167.94	CANB 874318	21/2/2014	Alstroemeriaceae	*Alstroemeria psittacina* Lehm.
-29.04	167.94	CANB 874204	2/10/2013	Amaranthaceae	*Amaranthus blitum* L.
-29.01	167.92	CANB 874278	19/2/2014	Amaranthaceae	*Amaranthus blitum*
-29.04	167.94	CANB 874209	2/10/2013	Amaranthaceae	*Amaranthus caudatus* L.
-29.04	167.99	CANB 874070	25/9/2013	Amaranthaceae	*Amaranthus hybridus*
-29.04	167.94	CANB 874320	21/2/2014	Amaranthaceae	*Amaranthus hybridus* L.
-29.00	167.93	CANB 874037	24/9/2013	Amaranthaceae	*Amaranthus viridis* L.
-29.04	167.94	CANB 874321	21/2/2014	Amaranthaceae	*Amaranthus viridis*
-29.04	167.93	CANB 874261	18/2/2014	Anacardiaceae	*Schinus terebinthifolia* Raddi
-29.04	167.94	CANB 874198	2/10/2013	Apiaceae	*Ammi majus* L.
-29.01	167.94	CANB 874185	1/10/2013	Apiaceae	*Centella asiatica* (L.) Urb.
-29.00	167.93	CANB 874022	24/9/2013	Apiaceae	*Cyclospermum leptophyllum* (Pers.) Sprague ex Britton & P.Wilson
-29.04	167.94	CANB 874115	27/9/2013	Apiaceae	*Foeniculum vulgare* Mill.
-29.04	167.94	CANB 874202	2/10/2013	Apiaceae	*Foeniculum vulgare*
-29.01	167.92	CANB 874158	29/9/2013	Apiaceae	*Petroselinum crispum* (Mill.) Fuss
-29.03	167.95	CANB 874297	20/2/2014	Apiaceae	*Petroselinum crispum*
-29.00	167.93	CANB 874040	24/9/2013	Apiaceae	*Torilis nodosa* (L.) Gaertn.
-29.04	167.94	CANB 874288	19/2/2014	Apocynaceae	*Catharanthus roseus* (L.) G.Don
-29.03	167.95	CANB 874311	21/2/2014	Apocynaceae	*Catharanthus roseus*
-29.00	167.92	CANB 874160	29/9/2013	Apocynaceae	*Gomphocarpus physocarpus* E.Mey.
-29.04	167.94	CANB 874376	26/2/2014	Apocynaceae	*Gomphocarpus physocarpus*
-29.04	167.94	CANB 874287	19/2/2014	Apocynaceae	*Nerium oleander* L.
-29.04	167.94	CANB 874117	27/9/2013	Apocynaceae	*Vinca major* L.
-29.04	167.95	CANB 874369	26/2/2014	Araceae	*Colocasia esculenta* (L.) Schott
-29.03	167.95	CANB 874302	20/2/2014	Araceae	*Monstera deliciosa* Liebm.
-29.04	168.00	CANB 874242	4/10/2013	Araceae	*Zantedeschia aethiopica* (L.) Spreng.
-29.05	167.93	CANB 874342	23/2/2014	Araliaceae	*Schefflera actinophylla* (Endl.) Harms
-29.04	167.95	CANB 874370	26/2/2014	Arecaceae	*Howea forsteriana* (C.Moore & F.Muell.) Becc.
-29.05	167.92	CANB 874134	28/9/2013	Asparagaceae	*Agave americana* L. var. *americana*
-29.04	167.94	CANB 874289	19/2/2014	Asparagaceae	*Chlorophytum comosum* (Thunb.) Jacques
-29.04	167.97	CANB 874334	22/2/2014	Asparagaceae	*Chlorophytum comosum*
-29.04	167.93	CANB 874259	18/2/2014	Asparagaceae	*Furcraea foetida* (L.) Haw.
-29.01	167.93	CANB 874325	22/2/2014	Asparagaceae	*Furcraea foetida*
-29.05	167.98	CANB 874252	18/2/2014	Asparagaceae	*Yucca aloifolia* L.
-29.06	167.97	CANB 874189	1/10/2013	Asphodelaceae	*Aloe maculata* All.

Latitude	Longitude	Collection identification number	Date	Target family	Target taxon
-29.01	167.94	CANB 874175	30/9/2013	Asteraceae	*Ageratina adenophora* (Spreng.) R.M.King & H.Rob.
-29.05	167.98	CANB 874000	23/9/2013	Asteraceae	*Ageratum conyzoides* L.
-29.02	167.97	CANB 874078	26/9/2013	Asteraceae	*Ageratum conyzoides*
-29.04	167.99	CANB 874058	25/9/2013	Asteraceae	*Arctotheca calendula* (L.) K.Lewin
-29.06	167.97	CANB 874226	3/10/2013	Asteraceae	*Argyranthemum frutescens* subsp. *foeniculaceum* (Pit.) Humphries
-29.02	167.97	CANB 874080	26/9/2013	Asteraceae	*Aster subulatus* Michx.
-29.04	167.92	CANB 874263	18/2/2014	Asteraceae	*Aster subulatus*
-29.00	167.93	CANB 874031	24/9/2013	Asteraceae	*Bidens pilosa* L.
-29.05	167.97	CANB 874380	27/2/2014	Asteraceae	*Bidens pilosa*
-29.04	167.94	CANB 874205	2/10/2013	Asteraceae	*Calendula officinalis* L.
-29.01	167.93	CANB 874179	30/9/2013	Asteraceae	*Carduus tenuiflorus* Curtis
-29.03	167.98	CANB 874238	4/10/2013	Asteraceae	*Carduus tenuiflorus*
-29.04	167.94	CANB 874105	27/9/2013	Asteraceae	*Cirsium vulgare* (Savi) Ten.
-29.02	167.92	CANB 874181	30/9/2013	Asteraceae	*Cirsium vulgare*
-29.06	167.96	CANB 874129	27/9/2013	Asteraceae	*Conyza bonariensis* (L.) Cronquist
-29.00	167.93	CANB 874292	20/2/2014	Asteraceae	*Conyza bonariensis*
-29.06	167.95	CANB 873986	23/9/2013	Asteraceae	*Conyza sumatrensis* (Retz.) E.Walker
-29.00	167.93	CANB 874293	20/2/2014	Asteraceae	*Conyza sumatrensis*
-29.06	167.96	CANB 873957	22/9/2013	Asteraceae	*Cotula australis* (Sieber ex Spreng.) Hook.f.
-29.00	167.93	CANB 874007	24/9/2013	Asteraceae	*Crassocephalum crepidioides* (Benth.) S.Moore
-29.04	167.94	CANB 874203	2/10/2013	Asteraceae	*Dimorphotheca ecklonis* DC.
-29.06	167.96	CANB 874269	18/2/2014	Asteraceae	*Erechtites valerianifolius* (Link ex Spreng.) DC.
-29.06	167.94	CANB 874382	27/2/2014	Asteraceae	*Erechtites valerianifolius*
-29.05	167.96	CANB 874248	5/10/2013	Asteraceae	*Erigeron karvinskianus* DC
-29.02	167.97	CANB 874366	25/2/2014	Asteraceae	*Erigeron karvinskianus*
-29.04	167.99	CANB 874067	25/9/2013	Asteraceae	*Euryops chrysanthemoides* (DC.) B.Nord.
-29.04	167.98	CANB 874251	5/10/2013	Asteraceae	*Euryops chrysanthemoides*
-29.00	167.93	CANB 874015	24/9/2013	Asteraceae	*Galinsoga parviflora* Cav.
-29.04	167.99	CANB 874059	25/9/2013	Asteraceae	*Gamochaeta americana* (Mill.) Wedd.
-29.01	167.95	CANB 874230	4/10/2013	Asteraceae	*Gamochaeta americana*
-29.01	167.95	CANB 874229	4/10/2013	Asteraceae	*Gamochaeta pensylvanica* (Willd.) Cabrera
-29.00	167.93	CANB 874006	24/9/2013	Asteraceae	*Gamochaeta purpurea* (L.) Cabrera
-29.04	167.94	CANB 874201	2/10/2013	Asteraceae	*Gazania linearis* (Thunb.) Druce
-29.02	167.93	CANB 874245	5/10/2013	Asteraceae	*Hypochaeris glabra* L.
-29.02	167.97	CANB 874082	26/9/2013	Asteraceae	*Hypochaeris radicata* L.
-29.04	167.92	CANB 874262	18/2/2014	Asteraceae	*Lactuca saligna* L.
-29.03	167.96	CANB 874306	20/2/2014	Asteraceae	*Lactuca saligna*
-29.00	167.93	CANB 874012	24/9/2013	Asteraceae	*Sigesbeckia orientalis* L.
-29.03	167.98	CANB 874237	4/10/2013	Asteraceae	*Sigesbeckia orientalis*
-29.02	167.96	CANB 874089	26/9/2013	Asteraceae	*Soliva sessilis* Ruiz & Pav.

Latitude	Longitude	Collection identification number	Date	Target family	Target taxon
-29.02	167.97	CANB 874083	26/9/2013	Asteraceae	*Sonchus oleraceus* L.
-29.00	167.93	CANB 874030	24/9/2013	Asteraceae	*Tagetes minuta* L.
-29.04	167.94	CANB 874200	2/10/2013	Asteraceae	*Tagetes patula* L.
-29.05	167.97	CANB 874352	24/2/2014	Asteraceae	*Tagetes patula*
-29.00	167.93	CANB 874041	24/9/2013	Asteraceae	*Taraxacum* F.H.Wigg.
-29.03	167.99	CANB 874338	23/2/2014	Asteraceae	*Taraxacum* sp.
-29.00	167.93	CANB 874036	24/9/2013	Balsaminaceae	*Impatiens walleriana* Hook.f.
-29.02	167.92	CANB 874296	20/2/2014	Balsaminaceae	*Impatiens walleriana*
-29.04	167.94	CANB 874378	26/2/2014	Basellaceae	*Anredera cordifolia* (Ten.) Steenis
-29.04	167.94	CANB 874106	27/9/2013	Bignoniaceae	*Tecoma capensis* (Thunb.) Lindl.
-29.03	167.99	CANB 874340	23/2/2014	Bignoniaceae	*Tecoma capensis*
-29.04	167.94	CANB 874208	2/10/2013	Boraginaceae	*Cynoglossum amabile* Stapf & J.R.Drumm.
-29.04	167.94	CANB 874213	2/10/2013	Brassicaceae	*Brassica* ?*oleracea*
-29.00	167.93	CANB 874021	24/9/2013	Brassicaceae	*Brassica* cf. ×*juncea*
-29.00	167.93	CANB 874047	24/9/2013	Brassicaceae	*Brassica oleracea* L. [cultivated]
-29.06	167.94	CANB 874187	1/10/2013	Brassicaceae	*Brassica* ×*juncea* (L.) Czern.
-29.06	167.95	CANB 873987	23/9/2013	Brassicaceae	*Capsella bursa-pastoris* (L.) Medik.
-29.00	167.93	CANB 874023	24/9/2013	Brassicaceae	*Cardamine flexuosa* With.
-29.04	167.94	CANB 874206	2/10/2013	Brassicaceae	*Diplotaxis tenuifolia* (L.) DC
-29.03	167.95	CANB 874309	21/2/2014	Brassicaceae	*Diplotaxis tenuifolia*
-29.04	167.99	CANB 874065	25/9/2013	Brassicaceae	*Eruca sativa* Mill.
-29.04	167.94	CANB 874199	2/10/2013	Brassicaceae	*Eruca sativa*
-29.04	167.94	CANB 874207	2/10/2013	Brassicaceae	*Iberis umbellata* L.
-29.00	167.93	CANB 874018	24/9/2013	Brassicaceae	*Lepidium bonariense* L.
-29.00	167.93	CANB 874049	24/9/2013	Brassicaceae	*Lepidium bonariense*
-29.06	167.96	CANB 870136	22/9/2013	Brassicaceae	*Lobularia maritima* (L.) Desv.
-29.06	167.96	CANB 873968	23/9/2013	Brassicaceae	*Matthiola incana* (L.) W.T.Aiton
-29.00	167.93	CANB 874011	24/9/2013	Brassicaceae	*Sisymbrium officinale* (L.) Scop.
-29.00	167.93	CANB 874009	24/9/2013	Brassicaceae	*Sisymbrium orientale* L.
-29.04	167.94	CANB 874110	27/9/2013	Cannaceae	*Canna indica* L.
-29.03	167.95	CANB 874300	20/2/2014	Cannaceae	*Canna indica*
-29.05	167.93	CANB 874341	23/2/2014	Caricaceae	*Carica papaya* L.
-29.06	167.96	CANB 873958	22/9/2013	Caryophyllaceae	*Cerastium glomeratum* Thuill.
-29.04	167.94	CANB 874123	27/9/2013	Caryophyllaceae	*Cerastium glomeratum*
-29.02	167.96	CANB 874091	26/9/2013	Caryophyllaceae	*Paronychia brasiliana* DC.
-29.02	167.96	CANB 874088	26/9/2013	Caryophyllaceae	*Petrorhagia dubia* (Raff.) G.Lopez & Romo
-29.00	167.93	CANB 874014	24/9/2013	Caryophyllaceae	*Polycarpon tetraphyllum* (L.) L.
-29.06	167.96	CANB 874127	27/9/2013	Caryophyllaceae	*Sagina apetala* Ard.
-29.06	167.96	CANB 873964	23/9/2013	Caryophyllaceae	*Silene gallica* L. var. *gallica*
-29.02	167.97	CANB 874077	26/9/2013	Caryophyllaceae	*Silene gallica* var. *gallica*

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-29.02	167.97	CANB 874074	26/9/2013	Caryophyllaceae	*Silene gallica* var. *quinquevulnera* (L.) W.D.J.Koch
-29.06	167.96	CANB 870137	22/9/2013	Caryophyllaceae	*Stellaria media* (L.) Vill.
-29.04	167.95	CANB 874197	2/10/2013	Casuarinaceae	*Casuarina glauca* Sieber ex Spreng.
-29.04	167.95	CANB 874358	25/2/2014	Casuarinaceae	*Casuarina glauca* [cultivated]
-29.00	167.93	CANB 874010	24/9/2013	Chenopodiaceae	*Chenopodium album* L.
-29.03	167.99	CANB 874323	21/2/2014	Chenopodiaceae	*Chenopodium album*
-29.04	167.99	CANB 874066	25/9/2013	Chenopodiaceae	*Chenopodium murale* L.
-29.03	167.98	CANB 874240	4/10/2013	Chenopodiaceae	*Dysphania ambrosioides* (L.) Mosyakin & Clemants
-29.04	167.94	CANB 874319	21/2/2014	Chenopodiaceae	*Dysphania ambrosioides*
-29.00	167.92	CANB 874279	19/2/2014	Chenopodiaceae	*Einadia trigonos* subsp. *stellulata* (Benth.) Paul G.Wilson
-29.03	167.95	CANB 874298	20/2/2014	Convolvulaceae	*Ipomoea batatas* (L.) Lam.
-29.04	167.94	CANB 874109	27/9/2013	Convolvulaceae	*Ipomoea indica* (Burm.) Merr.
-29.06	167.94	CANB 874152	29/9/2013	Crassulaceae	*Bryophyllum pinnatum* (Lam.) Oken
-29.04	167.94	CANB 874116	27/9/2013	Cucurbitaceae	*Cucurbita maxima* Lam.
-29.03	167.95	CANB 874312	21/2/2014	Cucurbitaceae	*Cucurbita maxima*
-29.05	167.97	CANB 874346	24/2/2014	Cucurbitaceae	*Cucurbita maxima*
-29.00	167.93	CANB 874046	24/9/2013	Cucurbitaceae	*Sechium edule* (Jacq.) Sw. [cultivated]
-29.02	167.93	CANB 874247	5/10/2013	Cyperaceae	*Carex leporina* L.
-29.04	167.95	CANB 874222	3/10/2013	Cyperaceae	*Cyperus albostriatus* Schrad.
-29.04	167.99	CANB 874055	25/9/2013	Cyperaceae	*Cyperus brevifolius* (Rottb.) Endl. ex Hassk.
-29.01	167.93	CANB 874154	29/9/2013	Cyperaceae	*Cyperus gracilis* R.Br.
-29.05	167.95	CANB 874002	23/9/2013	Cyperaceae	*Cyperus involucratus* Rottb.
-29.06	167.96	CANB 874266	18/2/2014	Cyperaceae	*Cyperus polystachyos* Rottb.
-29.02	167.92	CANB 874295	20/2/2014	Cyperaceae	*Cyperus rotundus* L.
-29.04	167.94	CANB 874375	26/2/2014	Euphorbiaceae	*Euphorbia cyathophora* Murray
-29.03	167.95	CANB 874004	24/9/2013	Euphorbiaceae	*Euphorbia peplus* L.
-29.01	167.93	CANB 874157	29/9/2013	Euphorbiaceae	*Euphorbia prostrata* Aiton
-29.06	167.96	CANB 874190	2/10/2013	Euphorbiaceae	*Euphorbia prostrata*
-29.06	167.96	CANB 874265	18/2/2014	Euphorbiaceae	*Euphorbia prostrata*
-29.06	167.96	CANB 874270	18/2/2014	Euphorbiaceae	*Euphorbia prostrata*
-29.00	167.93	CANB 874038	24/9/2013	Euphorbiaceae	*Phyllanthus tenellus* Roxb.
-29.04	167.95	CANB 874368	26/2/2014	Euphorbiaceae	*Phyllanthus tenellus*
-29.00	167.93	CANB 874029	24/9/2013	Euphorbiaceae	*Ricinus communis* L.
-29.04	167.94	CANB 874377	26/2/2014	Euphorbiaceae	*Ricinus communis*
-29.00	167.93	CANB 874048	24/9/2013	Fabaceae	*Vigna unguiculata* (L.) Walp. [cultivated]
-29.02	167.92	CANB 874163	29/9/2013	Fabaceae (Caesalpinioideae)	*Caesalpinia decapetala* (Roth) Alston
-29.04	167.94	CANB 874112	27/9/2013	Fabaceae (Caesalpinioideae)	*Paraserianthes lophantha* (Wild.) I.C.Nielsen subsp. *lophantha*
-29.04	167.94	CANB 874317	21/2/2014	Fabaceae (Caesalpinioideae)	*Senna pendula* var. *glabrata* (Vogel) H.S.Irwin & Barneby

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-29.02	167.92	CANB 874162	29/9/2013	Fabaceae (Caesalpinioideae)	*Senna septemtrionalis* (Viv.) H.S.Irwin & Barneby
-29.02	167.92	CANB 874276	19/2/2014	Fabaceae (Caesalpinioideae)	*Senna septemtrionalis*
-29.03	167.95	CANB 874310	21/2/2014	Fabaceae (Caesalpinioideae)	*Senna septemtrionalis*
-29.04	167.99	CANB 874053	25/9/2013	Fabaceae (Faboideae)	*Arachis pintoi* Krapov. & W.C.Greg.
-29.02	167.93	CANB 874246	5/10/2013	Fabaceae (Faboideae)	*Arachis pintoi*
-29.04	167.93	CANB 874193	2/10/2013	Fabaceae (Faboideae)	*Chamaecytisus palmensis* (Christ) F.A.Bisby & K.W.Nicholls
-29.03	167.98	CANB 874241	4/10/2013	Fabaceae (Faboideae)	*Crotalaria incana* subsp. *purpurascens* (Lam.) Milne-Redh.
-29.03	167.99	CANB 874322	21/2/2014	Fabaceae (Faboideae)	*Crotalaria incana* subsp. *purpurascens*
-29.01	167.94	CANB 874172	30/9/2013	Fabaceae (Faboideae)	*Crotalaria lanceolata* E.Mey. subsp. *lanceolata*
-29.06	167.95	CANB 873985	23/9/2013	Fabaceae (Faboideae)	*Desmodium incanum* (G.Mey.) DC.
-29.06	167.95	CANB 874281	19/2/2014	Fabaceae (Faboideae)	*Desmodium incanum*
-29.02	167.93	CANB 874329	22/2/2014	Fabaceae (Faboideae)	*Desmodium incanum*
-29.01	167.92	CANB 874277	19/2/2014	Fabaceae (Faboideae)	*Dipogon lignosus* (L.) Verdc.
-29.05	167.95	CANB 874224	3/10/2013	Fabaceae (Faboideae)	*Erythrina crista-galli* L.
-29.04	167.94	CANB 874212	2/10/2013	Fabaceae (Faboideae)	*Erythrina* ×*sykesii* Barneby & Krukoff
-29.04	167.95	CANB 874124	27/9/2013	Fabaceae (Faboideae)	*Genista monspessulana* (L.) L.A.S.Johnson
-29.02	167.92	CANB 874161	29/9/2013	Fabaceae (Faboideae)	*Glycine microphylla* (Benth.) Tindale
-29.06	167.95	CANB 873976	23/9/2013	Fabaceae (Faboideae)	*Lotus angustissimus* L.
-29.01	167.94	CANB 874324	22/2/2014	Fabaceae (Faboideae)	*Lotus uliginosus* Schkuhr
-29.05	167.96	CANB 874102	26/9/2013	Fabaceae (Faboideae)	*Lupinus cosentinii* Guss.
-29.04	167.94	CANB 874113	27/9/2013	Fabaceae (Faboideae)	*Macroptilium atropurpureum* (DC.) Urb.
-29.01	167.95	CANB 874167	30/9/2013	Fabaceae (Faboideae)	*Macroptilium atropurpureum*
-29.01	167.94	CANB 874170	30/9/2013	Fabaceae (Faboideae)	*Macrotyloma axillare* var. *axillare*
-29.04	167.95	CANB 874217	3/10/2013	Fabaceae (Faboideae)	*Macrotyloma axillare* (E.Mey.) Verdc. var. *axillare*
-29.05	167.97	CANB 874350	24/2/2014	Fabaceae (Faboideae)	*Macrotyloma axillare* var. *axillare*
-29.03	167.97	CANB 874099	26/9/2013	Fabaceae (Faboideae)	*Medicago arabica* (L.) Huds.
-29.06	167.95	CANB 870134	22/9/2013	Fabaceae (Faboideae)	*Medicago polymorpha* L.
-29.06	167.96	CANB 870135	22/9/2013	Fabaceae (Faboideae)	*Medicago polymorpha*
-29.06	167.95	CANB 873979	23/9/2013	Fabaceae (Faboideae)	*Melilotus indicus* (L.) All.
-29.02	167.97	CANB 874073	26/9/2013	Fabaceae (Faboideae)	*Neonotonia wightii* (Wight & Arn.) J.A.Lackey
-29.04	167.95	CANB 874144	28/9/2013	Fabaceae (Faboideae)	*Neonotonia wightii*
-29.06	167.95	CANB 873975	23/9/2013	Fabaceae (Faboideae)	*Trifolium campestre* Schreb.
-29.06	167.95	CANB 873977	23/9/2013	Fabaceae (Faboideae)	*Trifolium dubium* Sibth.
-29.02	167.96	CANB 874090	26/9/2013	Fabaceae (Faboideae)	*Trifolium glomeratum* L.

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-29.06	167.95	CANB 873981	23/9/2013	Fabaceae (Faboideae)	*Trifolium pratense* L.
-29.04	167.94	CANB 874114	27/9/2013	Fabaceae (Faboideae)	*Trifolium pratense*
-29.06	167.96	CANB 873961	22/9/2013	Fabaceae (Faboideae)	*Trifolium repens* L. var. *repens*
-29.06	167.95	CANB 873978	23/9/2013	Fabaceae (Faboideae)	*Vicia hirsuta* (L.) Gray
-29.00	167.93	CANB 874024	24/9/2013	Fabaceae (Faboideae)	*Vicia sativa* subsp. *nigra* L.
-29.04	167.96	CANB 874196	2/10/2013	Fabaceae (Mimosoideae)	*Acacia longifolia* subsp. *sophorae* (Labill.) Court
-29.04	167.94	CANB 874316	21/2/2014	Fabaceae (Mimosoideae)	*Acacia parramattensis* Tindale
-29.06	167.95	CANB 870133	22/9/2013	Frankeniaceae	*Frankenia pulverulenta* L.
-29.01	167.96	CANB 874233	4/10/2013	Gentianaceae	*Centaurium tenuiflorum* (Hoffmanns. & Link) Fritsch
-29.01	167.93	CANB 874153	29/9/2013	Geraniaceae	*Geranium gardneri* de Lange
-29.04	167.94	CANB 874211	2/10/2013	Geraniaceae	*Pelargonium ×hortorum* L.H.Bailey
-29.06	167.96	CANB 874131	27/9/2013	Hydrocharitaceae	*Egeria densa* Planch.
-29.01	167.96	CANB 874231	4/10/2013	Hypericaceae	*Hypericum canariense* L. [cultivated]
-29.04	167.97	CANB 874249	5/10/2013	Iridaceae	*Dietes grandiflora* N.E.Br.
-29.05	167.97	CANB 874351	24/2/2014	Iridaceae	*Dietes grandiflora*
-29.06	167.97	CANB 874225	3/10/2013	Iridaceae	*Ferraria crispa* Burm.
-29.03	167.97	CANB 874097	26/9/2013	Iridaceae	*Freesia laxa* (Thunb.) Goldblatt & J.C.Manning
-29.02	167.96	CANB 874085	26/9/2013	Iridaceae	*Freesia leichtlinii* Klatt subsp. *leichtlinii* × *Freesia leichtlinii* subsp. *alba* (G.L.Mey.) J.C.Manning & Goldblatt
-29.01	167.96	CANB 874232	4/10/2013	Iridaceae	*Freesia leichtlinii* subsp. *leichtlinii* × *Freesia leichtlinii* subsp. *alba*
-29.03	167.95	CANB 874149	28/9/2013	Iridaceae	*Gladiolus ×hortulanus* L.H.Bailey
-29.05	167.96	CANB 874001	23/9/2013	Iridaceae	*Moraea flaccida* (Sweet) Steud.
-29.02	167.96	CANB 874093	26/9/2013	Iridaceae	*Sisyrinchium rosulatum* E.P.Bicknell
-29.06	167.97	CANB 874100	26/9/2013	Iridaceae	*Watsonia meriana* var. *bulbillifera* (J.W.Mathews & L.Bolus) D.A.Cooke
-29.02	167.97	CANB 874353	24/2/2014	Juncaceae	*Juncus articulatus* L.
-29.02	167.97	CANB 874095	26/9/2013	Juncaceae	*Juncus bufonius* L.
-29.02	167.93	CANB 874244	5/10/2013	Juncaceae	*Juncus bufonius*
-29.05	167.95	CANB 874284	19/2/2014	Lamiaceae	*Mentha ×piperita* L. nothovar. *piperita*
-29.02	167.97	CANB 874355	24/2/2014	Lamiaceae	*Mentha ×piperita* nothovar. *piperita*
-29.04	167.99	CANB 874063	25/9/2013	Lamiaceae	*Salvia* cf. *coccinea*
-29.01	167.93	CANB 874159	29/9/2013	Lamiaceae	*Salvia coccinea* Buc'hoz ex Etl.
-29.01	167.94	CANB 874171	30/9/2013	Lamiaceae	*Salvia coccinea*
-29.00	167.93	CANB 874005	24/9/2013	Lamiaceae	*Stachys arvensis* (L.) L.
-29.04	167.99	CANB 874069	25/9/2013	Lauraceae	*Persea americana*
-29.00	167.93	CANB 874043	24/9/2013	Lauraceae	*Persea americana* Mill. [cultivated]
-29.02	167.92	CANB 874275	19/2/2014	Liliaceae	*Lilium formosanum* A.Wallace

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-29.03	167.95	CANB 874303	20/2/2014	Liliaceae	*Lilium formosanum*
-29.06	167.95	CANB 873971	23/9/2013	Linaceae	*Linum trigynum* L.
-29.04	167.96	CANB 874195	2/10/2013	Lomariopsidaceae	*Nephrolepis cordifolia* (L.) C.Presl
-29.03	167.93	CANB 874140	28/9/2013	Malvaceae	*Abutilon grandifolium* (Willd.) Sweet
-29.00	167.93	CANB 874027	24/9/2013	Malvaceae	*Malva parviflora* L.
-29.04	167.94	CANB 874122	27/9/2013	Malvaceae	*Malvastrum coromandelianum* (L.) Garcke
-29.04	167.99	CANB 874068	25/9/2013	Malvaceae	*Modiola caroliniana* (L.) G.Don
-29.01	167.95	CANB 874632	1/10/2013	Malvaceae	*Sida rhombifolia* L.
-29.04	167.95	CANB 874219	3/10/2013	Malvaceae	*Sida rhombifolia*
-29.03	167.99	CANB 874339	23/2/2014	Malvaceae	*Sida rhombifolia*
-29.03	167.94	CANB 874125	27/9/2013	Malvaceae	*Sida* L.
-29.02	167.92	CANB 874274	19/2/2014	Malvaceae	*Sida* sp.
-29.04	167.94	CANB 874111	27/9/2013	Meliaceae	*Melia azedarach* L.
-29.05	167.97	CANB 874347	24/2/2014	Meliaceae	*Melia azedarach*
-29.02	167.96	CANB 874363	25/2/2014	Meliaceae	*Toona ciliata* M.Roem
-29.04	167.99	CANB 874061	25/9/2013	Moraceae	*Morus nigra* L. [cultivated]
-29.04	167.94	CANB 874104	27/9/2013	Musaceae	*Musa acuminata* Colla
-29.03	167.95	CANB 874301	20/2/2014	Musaceae	*Musa acuminata*
-29.04	167.99	CANB 874051	25/9/2013	Myrtaceae	*Acca sellowiana* (O.Berg) Burret [cultivated]
-29.03	167.96	CANB 874362	25/2/2014	Myrtaceae	*Eucalyptus botryoides* Sm.
-29.05	167.98	CANB 874255	18/2/2014	Myrtaceae	*Metrosideros kermadecensis* W.R.B.Oliv.
-29.06	167.95	CANB 874280	19/2/2014	Myrtaceae	*Metrosideros kermadecensis*
-29.01	167.92	CANB 874336	23/2/2014	Myrtaceae	*Metrosideros kermadecensis*
-29.03	167.97	CANB 874098	26/9/2013	Myrtaceae	*Psidium cattleyanum* Sabine var. *cattleyanum*
-29.02	167.97	CANB 874256	18/2/2014	Myrtaceae	*Psidium cattleyanum* var. *cattleyanum*
-29.02	167.97	CANB 874258	18/2/2014	Myrtaceae	*Psidium cattleyanum* var. *littorale* (Raddi) Fosberg
-29.05	167.94	CANB 874191	2/10/2013	Myrtaceae	*Psidium guajava* L.
-29.02	167.97	CANB 874257	18/2/2014	Myrtaceae	*Psidium guajava*
-29.04	167.94	CANB 874118	27/9/2013	Myrtaceae	*Syzygium jambos* (L.) Alston
-29.03	167.97	CANB 874367	26/2/2014	Myrtaceae	*Syzygium jambos*
-29.03	167.97	CANB 874096	26/9/2013	Myrtaceae	*Syzygium jambos* [cultivated]
-29.02	167.96	CANB 874084	26/9/2013	Ochnaceae	*Ochna serrulata* (Hochst.) Walp.
-29.03	167.95	CANB 874361	25/2/2014	Oleaceae	*Ligustrum lucidum* W.T.Aiton
-29.00	167.93	CANB 874025	24/9/2013	Oleaceae	*Olea europaea* subsp. *cuspidata* (Wall. ex G.Don) Cif.
-29.02	167.93	CANB 874328	22/2/2014	Onagraceae	*Epilobium ciliatum* Raf.
-29.03	167.97	CANB 874332	22/2/2014	Onagraceae	*Ludwigia palustris* (L.) Elliott
-29.02	167.97	CANB 874354	24/2/2014	Onagraceae	*Ludwigia palustris*
-29.03	167.97	CANB 874331	22/2/2014	Onagraceae	*Ludwigia peploides* subsp. *montevidensis*
-29.02	167.97	CANB 874356	24/2/2014	Onagraceae	*Ludwigia peploides* subsp. *montevidensis* (Spreng.) P.H.Raven

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-29.06	167.96	CANB 874227	3/10/2013	Onagraceae	*Oenothera rosea* L'Hér. ex Aiton
-29.06	167.95	CANB 873982	23/9/2013	Orobanchaceae	*Orobanche minor* Sm.
-29.00	167.93	CANB 874019	24/9/2013	Oxalidaceae	*Oxalis debilis* Kunth
-29.05	167.98	CANB 873998	23/9/2013	Papaveraceae	*Argemone subfusiformis* G.B.Ownbey subsp. *subfusiformis*
-29.05	167.98	CANB 873993	23/9/2013	Papaveraceae	*Fumaria muralis* Sond. ex W.D.J.Koch subsp. *muralis*
-29.04	167.94	CANB 874210	2/10/2013	Papaveraceae	*Papaver rhoeas* L.
-29.04	167.95	CANB 874147	28/9/2013	Papaveraceae	*Papaver somniferum* L.
-29.05	167.95	CANB 874188	1/10/2013	Papaveraceae	*Papaver somniferum*
-29.01	167.94	CANB 874169	30/9/2013	Passifloraceae	*Passiflora edulis* Sims
-29.06	167.95	CANB 874282	19/2/2014	Passifloraceae	*Passiflora subpeltata* Ortega
-29.05	167.98	CANB 873999	23/9/2013	Phytolaccaceae	*Phytolacca octandra* L.
-29.05	167.97	CANB 874345	24/2/2014	Phytolaccaceae	*Phytolacca octandra*
-29.06	167.95	CANB 873974	23/9/2013	Phytolaccaceae	*Rivina humilis* L.
-29.03	167.98	CANB 874239	4/10/2013	Phytolaccaceae	*Rivina humilis*
-29.04	167.94	CANB 874108	27/9/2013	Pittosporaceae	*Pittosporum undulatum* Vent.
-29.02	167.92	CANB 874164	29/9/2013	Pittosporaceae	*Pittosporum undulatum*
-29.04	167.95	CANB 874146	28/9/2013	Plantaginaceae	*Lophospermum erubescens* D.Don
-29.03	167.96	CANB 874307	20/2/2014	Plantaginaceae	*Lophospermum erubescens*
-29.04	167.99	CANB 874056	25/9/2013	Plantaginaceae	*Misopates orontium* (L.) Raf.
-29.06	167.95	CANB 873983	23/9/2013	Plantaginaceae	*Plantago lanceolata* L.
-29.06	167.96	CANB 874132	27/9/2013	Plantaginaceae	*Plantago major* L.
-29.06	167.96	CANB 873960	22/9/2013	Plantaginaceae	*Veronica arvensis* L.
-29.06	167.95	CANB 873984	23/9/2013	Plantaginaceae	*Veronica persica* Poir.
-29.01	167.94	CANB 874183	1/10/2013	Plantaginaceae	*Veronica plebeia* R.Br.
-29.04	167.94	CANB 874315	21/2/2014	Poaceae	?*Chimonobambusa* Makino
-29.02	167.96	CANB 874087	26/9/2013	Poaceae	*Aira cupaniana* Guss.
-29.03	167.92	CANB 874273	19/2/2014	Poaceae	*Arundo donax* L.
-29.00	167.93	CANB 874035	24/9/2013	Poaceae	*Axonopus fissifolius* (Raddi) Kuhlm.
-29.06	167.95	CANB 873972	23/9/2013	Poaceae	*Bothriochloa macra* (Steud.) S.T.Blake
-29.06	167.95	CANB 873973	23/9/2013	Poaceae	*Briza minor* L.
-29.06	167.96	CANB 873959	22/9/2013	Poaceae	*Bromus catharticus* Vahl
-29.06	167.96	CANB 873967	23/9/2013	Poaceae	*Bromus diandrus* Roth
-29.06	167.96	CANB 873965	23/9/2013	Poaceae	*Bromus hordeaceus* L.
-29.04	167.99	CANB 874054	25/9/2013	Poaceae	*Cenchrus clandestinus* (Hochst. ex Chiov.) Morrone
-29.05	167.97	CANB 874381	27/2/2014	Poaceae	*Cenchrus clandestinus*
-29.01	167.93	CANB 874156	29/9/2013	Poaceae	*Cenchrus purpureus* (Schumach.) Morrone
-29.00	167.93	CANB 874026	24/9/2013	Poaceae	*Chloris gayana* Kunth
-29.02	167.97	CANB 874081	26/9/2013	Poaceae	*Cynodon dactylon* (L.) Pers. var. *dactylon*
-29.00	167.93	CANB 874045	24/9/2013	Poaceae	*Digitaria ciliaris* (Retz.) Koeler
-29.05	167.98	CANB 874254	18/2/2014	Poaceae	*Digitaria ciliaris*

Latitude	Longitude	Collection identification number	Date	Target family	Target taxon
-29.03	167.96	CANB 874308	20/2/2014	Poaceae	*Digitaria ciliaris*
-29.06	167.96	CANB 874267	18/2/2014	Poaceae	*Echinochloa crus-galli* (L.) P.Beauv.
-29.00	167.93	CANB 874291	20/2/2014	Poaceae	*Echinochloa crus-galli*
-29.06	167.96	CANB 874268	18/2/2014	Poaceae	*Echinochloa telmatophila* P.W.Michael & Vickery
-29.04	167.94	CANB 874120	27/9/2013	Poaceae	*Ehrharta erecta* Lam.
-29.04	167.92	CANB 874135	28/9/2013	Poaceae	*Eleusine indica* (L.) Gaertn.
-29.06	167.96	CANB 874283	19/2/2014	Poaceae	*Eleusine indica*
-29.00	167.93	CANB 874034	24/9/2013	Poaceae	*Eragrostis tenuifolia* (A.Rich.) Hochst. ex Steud.
-29.04	167.95	CANB 874220	3/10/2013	Poaceae	*Eragrostis tenuifolia*
-29.06	167.96	CANB 873969	22/9/2013	Poaceae	*Hordeum glaucum* Steud.
-29.03	167.99	CANB 874235	4/10/2013	Poaceae	*Hordeum leporinum* Link
-29.06	167.96	CANB 873962	23/9/2013	Poaceae	*Lolium loliaceum* (Bory & Chaub.) Hand.-Mazz.
-29.02	167.94	CANB 874186	1/10/2013	Poaceae	*Lolium loliaceum*
-29.00	167.93	CANB 874020	24/9/2013	Poaceae	*Megathyrsus maximus* var. *pubiglumis* (K.Schum.) B.K.Simon & S.W.L.Jacobs
-29.04	167.99	CANB 874060	25/9/2013	Poaceae	*Megathyrsus maximus* var. *pubiglumis*
-29.04	167.95	CANB 874215	3/10/2013	Poaceae	*Melinis minutiflora* P.Beauv.
-29.01	167.96	CANB 874234	4/10/2013	Poaceae	*Paspalum dilatatum* Poir.
-29.06	167.96	CANB 874271	18/2/2014	Poaceae	*Paspalum dilatatum*
-29.05	167.97	CANB 874348	24/2/2014	Poaceae	*Paspalum dilatatum*
-29.06	167.95	CANB 873989	23/9/2013	Poaceae	*Poa annua* L.
-29.03	167.95	CANB 874050	25/9/2013	Poaceae	*Rostraria cristata* (L.) Tzvelev
-29.03	167.93	CANB 874264	18/2/2014	Poaceae	*Setaria parviflora*
-29.00	167.93	CANB 874016	24/9/2013	Poaceae	*Setaria pumila* subsp. *subtesselata* (Buse) B.K.Simon
-29.06	167.94	CANB 874150	29/9/2013	Poaceae	*Setaria pumila* subsp. *subtesselata*
-29.02	167.92	CANB 874360	25/2/2014	Poaceae	*Setaria sphacelata* var. *anceps* (Stapf & C.E.Hubb.)Veldkamp
-29.04	167.96	CANB 874372	26/2/2014	Poaceae	*Setaria verticillata* (L.) P.Beauv.
-29.00	167.93	CANB 874290	20/2/2014	Poaceae	*Setaria viridis* (L.) P.Beauv.
-29.00	167.93	CANB 874017	24/9/2013	Poaceae	*Sorghum arundinaceum* (Desv.) Stapf
-29.03	167.95	CANB 874304	20/2/2014	Poaceae	*Sorghum arundinaceum*
-29.02	167.96	CANB 874092	26/9/2013	Poaceae	*Sporobolus africanus* (Poir.) Robyns & Tournay
-29.06	167.96	CANB 873966	23/9/2013	Poaceae	*Stenotaphrum secundatum* (Walter) Kuntze
-29.01	167.92	CANB 874335	23/2/2014	Poaceae	*Stenotaphrum secundatum*
-29.02	167.96	CANB 874086	26/9/2013	Poaceae	*Vulpia bromoides* (L.) Gray
-29.03	167.95	CANB 874142	28/9/2013	Poaceae	*Vulpia bromoides*
-29.06	167.94	CANB 874151	29/9/2013	Poaceae	*Vulpia bromoides*
-29.04	167.96	CANB 874148	28/9/2013	Polygalaceae	*Polygala myrtifolia* L.
-29.04	167.97	CANB 874250	5/10/2013	Polygalaceae	*Polygala myrtifolia*
-29.05	167.98	CANB 873992	23/9/2013	Polygonaceae	*Emex australis* Steinh.
-29.05	167.98	CANB 873991	23/9/2013	Polygonaceae	*Rumex brownii* Campd.

Latitude	Longitude	Collection identification number	Date	Target family	Target taxon
-29.05	167.97	CANB 874379	27/2/2014	Polygonaceae	*Rumex brownii*
-29.02	167.97	CANB 874357	24/2/2014	Polygonaceae	*Rumex crispus* L.
-29.05	167.95	CANB 874285	19/2/2014	Pontederiaceae	*Eichhornia crassipes* (Mart.) Solms
-29.05	167.98	CANB 874253	18/2/2014	Portulacaceae	*Portulaca oleracea* L.
-29.05	167.97	CANB 874343	24/2/2014	Potamogetonaceae	*Potamogeton cheesemanii* A.Benn.
-29.02	167.97	CANB 874364	25/2/2014	Potamogetonaceae	*Potamogeton cheesemanii*
-29.00	167.93	CANB 874008	24/9/2013	Primulaceae	*Lysimachia arvensis* (L.) U.Manns & Anderb.
-29.00	167.93	CANB 874013	24/9/2013	Primulaceae	*Lysimachia arvensis*
-29.04	167.95	CANB 874214	3/10/2013	Proteaceae	*Banksia integrifolia* L.f. subsp. *integrifolia*
-29.04	167.95	CANB 874221	3/10/2013	Proteaceae	*Grevillea robusta* A.Cunn. ex R.Br.
-29.01	167.94	CANB 874174	30/9/2013	Proteaceae	*Hakea salicifolia* (Vent.) B.L.Burtt
-29.03	167.96	CANB 874365	25/2/2014	Proteaceae	*Hakea salicifolia*
-29.04	167.93	CANB 874192	2/10/2013	Proteaceae	*Hakea sericea* Schrad. & J.C.Wendl.
-29.04	167.99	CANB 874064	25/9/2013	Proteaceae	*Macadamia integrifolia* Maiden & Betche [cultivated]
-29.03	167.98	CANB 874374	26/2/2014	Proteaceae	*Macadamia tetraphylla* L.A.S.Johnson
-29.03	167.93	CANB 874272	19/2/2014	Pteridaceae	*Pteris vittata* L. [cultivated]
-29.02	167.97	CANB 874094	26/9/2013	Ranunculaceae	*Ranunculus muricatus* L.
-29.03	167.95	CANB 874126	27/9/2013	Ranunculaceae	*Ranunculus muricatus*
-29.06	167.95	CANB 873988	23/9/2013	Ranunculaceae	*Ranunculus sessiliflorus* R.Br. ex DC. var. *sessiliflorus*
-29.04	167.96	CANB 874194	2/10/2013	Rosaceae	*Cotoneaster glaucophyllus* Franch.
-29.01	167.94	CANB 874184	1/10/2013	Rosaceae	*Potentilla indica* (Andrews) Th.Wolf
-29.04	167.94	CANB 874119	27/9/2013	Rosaceae	*Prunus persica* (L.) Batsch var. *persica*
-29.04	167.95	CANB 874145	28/9/2013	Rosaceae	*Prunus persica* var. *persica*
-29.04	167.99	CANB 874052	25/9/2013	Rosaceae	*Prunus persica* var. *persica* [cultivated]
-29.04	167.95	CANB 874223	3/10/2013	Rosaceae	*Pyrus* L. [cultivated]
-29.01	167.93	CANB 874294	20/2/2014	Rosaceae	*Rubus* ?*anglocandicans* A.Newton
-29.03	167.98	CANB 874373	26/2/2014	Rubiaceae	*Coffea arabica* L.
-29.05	167.93	CANB 874139	28/9/2013	Rubiaceae	*Coffea arabica* [cultivated]
-29.02	167.92	CANB 874182	30/9/2013	Rubiaceae	*Galium divaricatum* Pourr. ex Lam.
-29.04	167.95	CANB 874218	3/10/2013	Rubiaceae	*Galium divaricatum*
-29.06	167.95	CANB 873980	23/9/2013	Rubiaceae	*Sherardia arvensis* L.
-29.04	167.99	CANB 874072	25/9/2013	Rutaceae	*Citrus aurantiifolia* (Christm.) Swingle [cultivated]
-29.04	167.99	CANB 874071	25/9/2013	Rutaceae	*Citrus reticulata* Blanco [cultivated]
-29.00	167.93	CANB 874042	24/9/2013	Rutaceae	*Citrus ×aurantium* L. [cultivated]
-29.02	167.92	CANB 874165	29/9/2013	Rutaceae	*Citrus ×jambhiri* Lush.
-29.06	167.96	CANB 874130	27/9/2013	Salviniaceae	*Salvinia molesta* D.S.Mitch
-29.05	167.97	CANB 874344	24/2/2014	Salviniaceae	*Salvinia molesta*
-29.06	167.96	CANB 874128	27/9/2013	Scrophulariaceae	*Verbascum virgatum* Stokes
-29.03	167.95	CANB 874384	27/2/2014	Scrophulariaceae	*Verbascum virgatum*

Latitude	Longitude	Collection identification number	Date	Target family	Target taxon
-29.03	167.98	CANB 874337	23/2/2014	Simaroubaceae	*Ailanthus altissima* (Mill.) Swingle
-29.05	167.95	CANB 874003	23/9/2013	Solanaceae	*Brugmansia suaveolens* (Humb. & Bonpl. ex Willd.) Bercht. & J.Presl
-29.03	167.94	CANB 874286	19/2/2014	Solanaceae	*Cestrum nocturnum* L.
-29.03	167.95	CANB 874299	20/2/2014	Solanaceae	*Cestrum nocturnum*
-29.03	167.95	CANB 874313	21/2/2014	Solanaceae	*Cestrum nocturnum*
-29.05	167.98	CANB 873997	23/9/2013	Solanaceae	*Datura stramonium* L.
-29.05	167.92	CANB 874133	28/9/2013	Solanaceae	*Lycium ferocissimum* Miers
-29.00	167.93	CANB 874032	24/9/2013	Solanaceae	*Nicandra physalodes* (L.) Gaertn.
-29.05	167.92	CANB 874138	28/9/2013	Solanaceae	*Nicotiana tabacum* L.
-29.06	167.96	CANB 873990	23/9/2013	Solanaceae	*Petunia ×atkinsiana* (Sweet) D.Don ex W.H.Baxter
-29.00	167.93	CANB 874039	24/9/2013	Solanaceae	*Physalis peruviana* L.
-29.05	167.98	CANB 873994	23/9/2013	Solanaceae	*Solanum linnaeanum* Hepper & P.-M.Jaeger
-29.01	167.93	CANB 874180	30/9/2013	Solanaceae	*Solanum linnaeanum*
-29.00	167.93	CANB 874028	24/9/2013	Solanaceae	*Solanum lycopersicum* L.
-29.05	167.98	CANB 873996	23/9/2013	Solanaceae	*Solanum mauritianum* Scop.
-29.03	167.95	CANB 874314	21/2/2014	Solanaceae	*Solanum mauritianum*
-29.00	167.93	CANB 874044	24/9/2013	Solanaceae	*Solanum muricatum* Aiton [cultivated
-29.02	167.97	CANB 874079	26/9/2013	Solanaceae	*Solanum nodiflorum* Jacq.
-29.04	167.94	CANB 874103	27/9/2013	Tropaeolaceae	*Tropaeolum majus* L.
-29.05	167.97	CANB 874349	24/2/2014	Tropaeolaceae	*Tropaeolum majus*
-29.04	167.92	CANB 874141	28/9/2013	Urticaceae	*Urtica urens* L.
-29.03	167.98	CANB 874236	4/10/2013	Urticaceae	*Urtica urens*
-29.05	167.98	CANB 873995	23/9/2013	Verbenaceae	*Lantana camara* L.
-29.04	167.95	CANB 874216	3/10/2013	Verbenaceae	*Lantana montevidensis* (Spreng.) Briq.
-29.02	167.97	CANB 874075	26/9/2013	Verbenaceae	*Verbena incompta* P.W.Michael
-29.01	167.94	CANB 874178	30/9/2013	Verbenaceae	*Verbena incompta*
-29.06	167.96	CANB 873970	22/9/2013	Verbenaceae	*Verbena litoralis* Kunth
-29.04	167.95	CANB 874143	28/9/2013	Verbenaceae	*Verbena litoralis*
-29.01	167.94	CANB 874176	30/9/2013	Verbenaceae	*Verbena litoralis*
-29.01	167.94	CANB 874177	30/9/2013	Verbenaceae	*Verbena ×brasiliensis* Vell.
-29.06	167.94	CANB 874383	27/2/2014	Violaceae	*Viola banksii* K.R.Thiele & Prober
-29.01	167.94	CANB 874371	26/2/2014	Vitaceae	*Vitis vinifera* L.
-29.04	167.99	CANB 874057	25/9/2013	Vitaceae	*Vitis vinifera* [cultivated]

Table 2B. Norfolk Island Quarantine Survey – vascular plants (observed, no collections)

Latitude	Longitude	Target family	Target taxon	Date	Field Notes
-29.05	167.97	ARECACEAE	*Livistona* R.Br.	-/9/2013	Plant (single individual) sterile
-29.05	167.97	ARECACEAE	*Phoenix canariensis* Hort. ex Chabaud	-/9/2013	Plant (single individual) sterile
-29.03	167.94	ASPARAGACEAE	*Asparagus plumosus* Baker	-/9/2013, -/2/2014	Plants sterile (September 2013), in early bud (February 2014)
-29.05	167.96	ASTERACEAE	*Centaureamelitensis* L.	-/9/2013	Plants immature, in early bud
-29.05	167.96	AZOLLACEAE	*Azolla pinnata* R.Br.	-/9/2013	
-29.02	167.96	BRASSICACEAE	*Nasturtium* Aiton [probably *N. officinale*]	-/2/2014	Plants immature, in early bud
-29.04	167.96	FABACEAE	*Medicago sativa* L.	-/2/2014	Plants sterile
-29.03	**167.94**	MORACEAE	*Ficus carica* L.	-/9/2013	Plant (single individual) sterile
-29.04	167.94	MYRTACEAE	*Corymbia* K.D.Hill & L.A.S.Johnson	-/10/2013, -/2/2014	Numerous sterile seedlings naturalised from adult plantings
-29.05	167.95	POACEAE	*Ammophila arenaria* (L.) Link	-/9/2013, -/2/2014	Plants sterile
-29.06	167.96	POACEAE	*Lagurus ovatus* L.	-/2/2014	Plants senescent
-29.04	167.92	POACEAE	*Paspalum distichum* L.	-/9/2013	Plants sterile
-29.06	167.96	POACEAE	*Spinifex sericeus* R.Br.	-/9/2013, -/2/2014	Plants sterile
-29.05	167.96	POLYGONACEAE	*Rumex conglomeratus* Murray	-/9/2013, -/2/2014	Plants immature, in early bud (2013); sensescent, in old fruit (2014)
-29.05	167.96	PTERIDACEAE	*Pteris vittata* L.	-/9/2013, -/2/2014	Plants sterile
-29.03	167.94	ROSACEAE	*Eriobotrya japonica* (Thunb.) Lindl.	-/10/2013, -/2/2014	Plant (single individual) sterile (2013), in early bud (2014)
-29.01	167.93	SCROPHULARIACEAE	*Verbascum thapsus* L.	-/9/2013, -/2/2014	Plants sterile (rosettes only)

Table 2C . Norfolk Island Quarantine Survey – vascular plants (recorded by previous authors [Green (1985), de Lange et al. (2005) and Mills (2007b, 2007c, 2009, 2010, 2011, 2012, 2012b, 2012c], not collected or observed during NIQS)*

Target taxon	Target family
Ruellia ciliosa Pursh	ACANTHACEAE
Carpobrotus edulis (L.) N.E.Br.	AIZOACEAE
Nothoscordum borbonicum Kunth	ALLIACEAE
Xanthosoma sagittifolium (L.) Schott	ARACEAE
Alternanthera sessilis (L.) DC. [As *Alternanthera* sp. aff. *sessilis* in Mills (2010)]	AMARANTHACEAE
Apium graveolens L.	APIACEAE
Coriandrum sativum L.	APIACEAE
Hedera helix L.	ARALIACEAE
Tetrapanax papyrifer (Hook.) K.Koch	ARALIACEAE
Asparagus aethiopicus L.	ASPARAGACEAE
Carduus pycnocephalus L.	ASTERACEAE
Erechtites hieraciifolia Raf. ex DC.	ASTERACEAE
Facelis retusa (Lam.) Sch.Bip.	ASTERACEAE
Gamochaeta calviceps (Fernald) Cabrera	ASTERACEAE
Gamochaeta coarctata (Willd.) Kerguelen	ASTERACEAE
Lapsana communis L.	ASTERACEAE
Montanoa hibiscifolia Benth.	ASTERACEAE
Silybum marianum (L.) Gaertn.	ASTERACEAE
Solidago L.	ASTERACEAE
Tragopogon porrifolius L.	ASTERACEAE
Cynoglossum australe R.Br.	BORAGINACEAE
Echium plantagineum L.	BORAGINACEAE
Brassica ×napus L.	BRASSICACEAE
Cakile edentula (Bigelow) Hook.	BRASSICACEAE
Rapistrum rugosum (L.) All.	BRASSICACEAE
Calceolaria tripartita Ruiz & Pav.	CALCEOLARIACEAE
Lobelia purpurascens R.Br. [As *Pratia purpurascens* in Green (1994), and Mills (2007c, 2010)]	CAMPANULACEAE
Wahlenbergia violacea J.A.Petterson	CAMPANULACEAE
Lonicera japonica Thunb.	CAPRIFOLIACEAE
Cerastium vulgare Hartm. [As *Cerastium fontanum* subsp. *vulgare* in Green (1994) and Mills (2007c, 2010)]	CARYOPHYLLACEAE
Atriplex semibaccata R.Br.	CHENOPODIACEAE
Gloriosa superba L.	COLCHICACEAE
Tradescantia zebrina Hort. ex Bosse	COMMELINACEAE
Dichondra J.R.Forst. & G.Forst. Inglewood (J.M.Dalby 86/93) [As *Dichondra micrantha* in de Lange *et al*. (2005) and Mills (2007c, 2010)]	CONVOLVULACEAE
Ipomoea alba L.	CONVOLVULACEAE
Corynocarpus laevigatus J.R.Forst. & G.Forst.	CORYNOCARPACEAE
Bryophyllum delagoense (Eckl. & Zeyh.) Schinz	CRASSULACEAE
Crassula multicava Lem. subsp. *multicava*	CRASSULACEAE
Cucumis anguria L. var. *anguria* [As *Cucumis anguria* in Green (1994), and Mills (2007c, 2010)]	CUCURBITACEAE
Hesperocyparis lusitanica (Mill.) Bartel [As *Cupressus lusitanica* Mill. in Green (1994)]	CUPRESSACEAE
Hypolepis distans Hook.	DENNSTAEDTIACEAE
Acalypha wilkesiana Müll.Arg.	EUPHORBIACEAE
Homalanthus populifolius Graham	EUPHORBIACEAE

Target taxon	Target family
Caesalpinia major (Medik.) Dandy & Exell	FABACEAE (CAESALPINOIDEAE)
Chamaecrista rotundifolia (Pers.) Greene	FABACEAE (CAESALPINOIDEAE)
Castanospermum australe A.Cunn. ex Mudie	FABACEAE (FABOIDEAE)
Crotalaria agatiflora Schweinf. subsp. *agatiflora*	FABACEAE (FABOIDEAE)
Desmodium tortuosum (Sw.) DC.	FABACEAE (FABOIDEAE)
Erythrina caffra Thunb.	FABACEAE (FABOIDEAE)
Erythrina speciosa Andrews	FABACEAE (FABOIDEAE)
Indigofera suffruticosa Mill.	FABACEAE (FABOIDEAE)
Lablab purpureus (L.) Sweet	FABACEAE (FABOIDEAE)
Medicago lupulina L.	FABACEAE (FABOIDEAE)
Pueraria lobata (Willd.) Ohwi	FABACEAE (FABOIDEAE)
Trifolium suffocatum L.	FABACEAE (FABOIDEAE)
Vicia tetrasperma (L.) Moench	FABACEAE (FABOIDEAE)
Acacia dealbata A.Cunn.	FABACEAE (MIMOSOIDEAE)
Erodium moschatum (L.) L'Hér. ex Aiton	GERANIACEAE
Geranium dissectum L.	GERANIACEAE
Pelargonium australe Willd.	GERANIACEAE
Pelargonium panduriforme Eckl. & Zeyh.	GERANIACEAE
Tritonia crocata (L.) Ker Gawl.	IRIDACEAE
Tritonia gladiolaris (Lam.) Goldblatt & J.C.Manning [As *Tritonia lineata* in Green (1994)]	IRIDACEAE
Juncus australis Hook.f.	JUNCACEAE
Juncus pallidus R.Br.	JUNCACEAE
Juncus usitatus L.A.S.Johnson	JUNCACEAE
Lavandula dentata L.	LAMIACEAE
Marrubium vulgare L.	LAMIACEAE
Mentha spicata L.	LAMIACEAE
Salvia verbenaca L.	LAMIACEAE
Cinnamomum camphora (L.) J.Presl	LAURACEAE
Cryptocarya triplinervis R.Br.	LAURACEAE
Linum marginale A.Cunn.	LINACEAE
Lythrum hyssopifolium F.M.Bailey	LYTHRACEAE
Hibiscus pedunculatus L.f.	MALVACEAE
Pavonia hastata Cav.	MALVACEAE
Triumfetta rhomboidea Jacq.	MALVACEAE
Delarbrea paradoxa Veill.	MYODOCARPACEAE
Eucalyptus fibrosa F.Muell.	MYRTACEAE
Eugenia uniflora L.	MYRTACEAE
Metrosideros excelsa Sol. ex Gaertn. × *M. kermadecensis* W.R.B.Oliv.	MYRTACEAE
Mirabilis jalapa L.	NYCTAGINACEAE
Ligustrum sinense Lour.	OLEACEAE
Oenothera affinis Cambess.	ONAGRACEAE
Oenothera stricta Ledeb. ex Link subsp. *stricta*	ONAGRACEAE
Oenothera tetraptera Cav.	ONAGRACEAE
Oxalis chnoodes Lourteig	OXALIDACEAE
Oxalis corniculata L.	OXALIDACEAE
Oxalis radicosa A.Rich.	OXALIDACEAE
Passiflora ligularis Juss.	PASSIFLORACEAE
Breynia disticha J.R.Forst. & G.Forst.	PHYLLANTHACEAE
Pittosporum crassifolium Banks & Sol. ex A.Cunn.	PITTOSPORACEAE

Target taxon	Target family
Plantago debilis R.Br.	PLANTAGINACEAE
Russelia equisetifolia Schltdl. & Champ.	PLANTAGINACEAE
Plumbago auriculata Lam.	PLUMBAGINACEAE
Anthosachne scabra (R.Br.) Nevski [As *Elymus rectisetus* in Green (1994) and as *Elymus scaber* in de Lange (2005) and Mills (2007c, 2010)]	POACEAE
Anthoxanthum odoratum L.	POACEAE
Avena sativa L.	POACEAE
Briza maxima L.	POACEAE
Bromus arenarius Labill.	POACEAE
Bromus scoparius L.	POACEAE
Catapodium rigidum (L.) C.E.Hubb.	POACEAE
Dactylis glomerata L.	POACEAE
Eragrostis brownii (Kunth) Nees	POACEAE
Lolium rigidum Gaudin	POACEAE
Melinis repens (Willd.) Zizka	POACEAE
Phalaris minor Retz.	POACEAE
Poa pratensis L.	POACEAE
Setaria palmifolia (J.Koenig) Stapf	POACEAE
Vulpia myuros f. *megalura* (Nutt.) Auquier	POACEAE
Fallopia convolvulus (L.) Á.Löve	POLYGONACEAE
Platycerium bifurcatum (Cav.) C.Chr.	POLYPODIACEAE
Ranunculus parviflorus L.	RANUNCULACEAE
Ranunculus repens L.	RANUNCULACEAE
Rhaphiolepis umbellata (Thunb.) Makino	ROSACEAE
Pentas lanceolata (Forssk.) Deflers	RUBIACEAE
Cardiospermum halicacabum L.	SAPINDACEAE
Selaginella kraussiana (Kunze) A.Braun	SELAGINELLACEAE
Solandra maxima (Sesse & Moc.) P.S.Green	SOLANACEAE
Boehmeria nivea (L.) Gaudich.	URTICACEAE
Pilea microphylla (L.) Liebm.	URTICACEAE
Urtica dioica subsp. *gracilis* (Aiton) Selander	URTICACEAE
Duranta erecta L.	VERBENACEAE
Viola tricolor L.	VIOLACEAE

Table 3. Norfolk Island Quarantine Survey - invertebrates (plant and animal hosts) [note that 'mainland Australia' covers Tasmania as well]

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	21/02/2014	Fabaceae	*Glycine max* (L.) Merr.	Trombidiformes	Erythraeidae	*Abrolophus* Berlese, 1891	Y	?	Hand collection
-29.04	167.99	8/10/2014	Solanaceae	*Solanum lycopersicum* L.	Trombidiformes	Erythraeidae	*Abrolophus* sp.	Y	?	Beating
-29.04	167.99	27/11/2014	Moraceae	*Ficus carica* L.	Trombidiformes	Eriophyidae	*Aceria fica* (Cotte, 1920)	Y	Y	Ethanol wash
-29.02	167.95	23/09/2013	Urticaceae	*Boehmeria australis* Endl.	Trombidiformes	Eriophyidae	*Aceria* Keifer, 1944	Y	?	Hand collection
-29.05	167.93	27/09/2013	Rutaceae	*Citrus* L.	Trombidiformes	Eriophyidae	*Aceria sheldoni* (Ewing, 1937)	Y	Y	Hand collection
-29.01	167.92	26/09/2013	Rutaceae	*Citrus* sp.	Trombidiformes	Eriophyidae	*Aceria sheldoni*	Y	Y	Hand collection
-29.00	167.93	24/09/2013	Rutaceae	*Citrus sinensis* (L.) Osbeck	Trombidiformes	Eriophyidae	*Aceria sheldoni*	Y	Y	Ethanol wash
-29.01	167.93	21/05/2014	NA	NA	Lepidoptera	Noctuidae	*Achaea janata* (Linnaeus, 1758)	N	Y	Light trap in eucalypt forest
-29.03	167.94	26/05/2014	NA	NA	Lepidoptera	Noctuidae	*Achaea janata*	N	Y	Light trap
-29.05	167.93	24/09/2013	Araucariaceae	*Araucaria heterophylla* (Salisb.) Franco	Coleoptera	Ptiliidae	*Acrotrichis norfolkensis* (Deane, 1931)	N	N	Hand collection from felled tree
-29.03	167.99	23/10/2013	Various		Coleoptera	Ptiliidae	*Acrotrichis norfolkensis*	N	N	Yellow pan
-29.00	167.93	24/10/2013	Various		Coleoptera	Ptiliidae	*Acrotrichis norfolkensis*	N	N	Yellow pan
-29.04	167.95	26/11/2014	Rosaceae	*Prunus persica* (L.) Batsch var. *persica*	Trombidiformes	Eriophyidae	*Aculops* Keifer, 1966	Y	?	Ethanol wash
-29.03	167.93	27/11/2014	Solanaceae	*Solanum lycopersicum*	Trombidiformes	Eriophyidae	*Aculops lycopersici* (Tryon, 1917)	Y	Y	Ethanol wash
-29.00	167.93	20/02/2014	Solanaceae	*Solanum lycopersicum*	Trombidiformes	Eriophyidae	*Aculops lycopersici*	Y	Y	Hand collection
-29.04	167.96	24/11/2014	Fabaceae	*Phaseolus* L.	Trombidiformes	Eriophyidae	*Aculops lycopersici*	Y	Y	Ethanol wash
-29.05	167.93	13/06/2013	Fabaceae	*Medicago sativa* L.	Hemiptera	Aphididae	*Acyrthosiphon kondo* Shinji, 1938*i*	Y	Y	Sweep net
-29.02	167.97	10/10/2014	NA	NA	Hemiptera	Aphididae	*Acyrthosiphon kondoi*	Y	Y	Light trap
-29.01	167.92	16/10/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Aphididae	*Acyrthosiphon kondoi*	Y	Y	Hand collection
-29.04	167.99	8/10/2014	Fabaceae	*Trifolium repens* L. var. *repens*	Hemiptera	Aphididae	*Acyrthosiphon kondoi*	Y	Y	Sweep net
-29.04	167.94	23/09/2013	Fabaceae	*Trifolium repens* var. *repens*	Hemiptera	Aphididae	*Acyrthosiphon kondoi*	Y	Y	Hand collection
-29.03	167.94	10/10/2014	Poaceae	*Digitaria* Haller	Hemiptera	Aphididae	*Acyrthosiphon kondoi*	Y	Y	Sweep net

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.02	167.97	22/09/2013	Fabaceae	*Trifolium repens* var. *repens*	Hemiptera	Aphididae	*Acyrthosiphon pisum* (Harris, 1776)	Y	Y	Hand collection
-29.05	167.93	13/06/2013	Fabaceae	*Medicago sativa*	Hemiptera	Aphididae	*Acyrthosiphon pisum*	Y	Y	Hand collection
-29.00	167.93	12/06/2013	Rutaceae	*Citrus ×aurantium* L.	Trombidiformes	Acariphenacidae	*Adactylidium* Cross, 1965	Y	?	Hand collection
-29.05	167.92	24/05/2014	Poaceae	Unknown	Orthoptera	Podoscirtidae	*Adenopterus norfolkensis* Chopard, 1951	N	N	Sweep net
-29.01	167.93	26/02/2014	Myrtaceae	*Eucalyptus* L'Hér.	Coleoptera	Aderidae	*Aderus norfolcensis* (Lea, 1917)	N	N	Hand collection and sweep net
-29.04	167.99	24/11/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus* (Haga, 1973)	Y	Y	Hand collection from litter
-29.01	167.94	22/03/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection from leaf litter
-29.00	167.94	24/03/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection from leaf litter
-29.02	167.96	24/10/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection ex leaf litte
-29.01	167.95	26/12/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection ex Norfork Island pine dead wood
-29.01	167.94	22/12/2012	Asparagaceae	*Cordyline obtecta* (Graham) Baker	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection from dead leaves
-29.01	167.93	10/07/2013	Myrtaceae	*Eucalyptus* sp.	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection from Eucalypt plantation – dead leaves
-29.02	167.92	23/10/2013	Myrtaceae	*Eucalyptus* sp.	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection ex leaf litte
-29.02	167.96	27/12/2012	Proteaceae, Arecaceae	*Grevillea robusta* A.Cunn. ex R.Br.	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection from dead leaves
-29.01	167.95	26/10/2013	Unknown	NA	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection from dead branch and lichens
-29.02	167.95	21/12/2012	NA	NA	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection from dead twigs and leaves
-29.02	167.95	21/12/2013	NA	NA	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection, berlesate from leaf litter
-29.02	167.96	26/11/2014; 28/11/2014; 29/11/2014	NA	NA	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection, berlesate from leaf litter
-29.02	167.95	21/12/2013	NA	NA	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Ex leaf litter
-29.01	167.94	23/12/2013	NA	NA	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Ex leaf litter
-29.02	167.94	25/05/2014	NA	NA	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Trapping ex leaf litter
-29.02	167.95	22/11/2014	Oleaceae	*Olea europaea* subsp. *cuspidata* (Wall. ex G.Don) Cif.	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection from leaf litter

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.94	27/11/2014; 26/03/2014	Oleaceae	*Olea europaea* subsp. *cuspidata*	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection ex leaf litter
-29.01	167.94	21/10/2013; 26/10/2013	Myrtaceae	*Psidium cattleyanum* Sabine var. *cattleyanum*	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection, berlesate ex leaf litter
-29.00	167.94	24/03/2014	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection
-29.02	167.95	23/11/2014	Arecaceae	Unknown	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection from dead palm frond
-29.01	167.94	22/12/2012	Arecaceae	Unknown	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection from dead palm fronds
-29.02	167.92	23/10/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Adraneothrips russatus*	Y	Y	Hand collection from dead leaves
-29.06	167.93	19/02/2014	NA	NA	Diptera	Culicidae	*Aedes* (*Halaedes*) *australis* (Erichson, 1842)	N	Y	Dipping in brackish water, rock pools. Thousands of larvae
-29.02	167.97	21/02/2014	NA	NA	Diptera	Culicidae	*Aedes* (*Halaedes*) *australis*	N	Y	Dipping in brackish water ground pool
-29.05	167.95	24/05/2014	NA	NA	Diptera	Culicidae	*Aedes* (*Halaedes*) cf. *australis*	N	Y	Culicoides trap Set 21.5.2014, collected 24.5.2014, damaged specimens (scales missing)
-29.05	167.93	24/02/2014	Moraceae	*Ficus carica*	Diptera	Culicidae	*Aedes* (*Rampamyia*) *notoscriptus* (Skuse, 1889)	Y	Y	Dipping from hollow in fig
-29.04	167.94	23/09/2013	Moraceae	*Ficus macrophylla* Desf. ex Pers.	Diptera	Culicidae	*Aedes* (*Rampamyia*) *notoscriptus*	Y	Y	Hand collection
-29.05	167.97	22/02/2014	NA	NA	Diptera	Culicidae	*Aedes* (*Rampamyia*) *notoscriptus*	Y	Y	CO2 light trap
-29.04	167.94	23/09/2013	NA	NA	Diptera	Culicidae	*Aedes* (*Rampamyia*) *notoscriptus*	Y	Y	Dipping
-29.04	167.99	25/09/2013	NA	NA	Diptera	Culicidae	*Aedes* (*Rampamyia*) *notoscriptus*	Y	Y	Dipping
-29.04	167.98	20/02/2014	NA	NA	Diptera	Culicidae	*Aedes* (*Rampamyia*) *notoscriptus*	Y	Y	Dipping
-29.03	167.94	19/02/2014	NA	NA	Diptera	Culicidae	*Aedes* (*Rampamyia*) *notoscriptus*	Y	Y	CO2 light trap
-29.03	167.96	19/02/2014	NA	NA	Diptera	Culicidae	*Aedes* (*Rampamyia*) *notoscriptus*	Y	Y	BG trap no CO2
-29.03	167.96	23/02/2014	NA	NA	Diptera	Culicidae	*Aedes* (*Rampamyia*) *notoscriptus*	Y	Y	CO2 light trap
-29.03	167.96	25/02/2014	NA	NA	Diptera	Culicidae	*Aedes* (*Rampamyia*) *notoscriptus*	Y	Y	CO2 light trap
-29.02	167.95	24/02/2014	NA	NA	Diptera	Culicidae	*Aedes* (*Rampamyia*) *notoscriptus*	Y	Y	CO2 light trap

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.94	22/02/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	BG trap with CO2 (21 hours of trapping)
-29.04	167.94	24/02/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Dipping from 44 gallon drum
-29.05	167.97	21/02/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Dipping from bin for string plants
-29.05	167.97	21/02/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Dipping from bird bath and bromeliads
-29.05	167.96	9/10/2014	NA	*NA*	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Dipping from bucket
-29.03	167.94	23/09/2013	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Hand collection (larvae)
-29.00	167.93	24/09/2013	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Hand collection (larvae)
-29.00	167.93	24/09/2013	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Hand collection (larvae)
-29.02	167.96	10/06/2013	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Hand collection (larvae, pupae)
-29.03	167.95	11/06/2013	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Hand collection from tyre (larvae, pupae)
-29.03	167.95	11/06/2013	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Hand collection from rocky cavity (larvae)
-29.02	167.96	10/06/2013	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Hand collection from compost bean (larvae)
-29.01	167.96	26/05/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Hand collection from tarpaulin holding water (larvae)
-29.03	167.94	24/05/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Dipping and hand collection from old discarded animal (bird?) cage with small container holding water
-29.03	167.96	9/10/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Dipping from plant holding platform with pooling water (larvae)
-29.03	167.96	22/02/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	CO2 light trap (soda stream cylinder)
-29.05	167.95	20/02/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	CO2 light trap (surveillance)
-29.00	167.93	20/02/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Dipping in receptacles in boat
-29.04	167.94	19/02/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Dipping from tyres in fence
-29.12	167.95	14/10/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Hand collection from tarpaulin with pooling water (larvae)

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.94	19/02/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Dipping in tyre
-29.04	167.94	19/02/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Dipping in tyre
-29.03	167.95	19/02/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Dipping in tyre
-29.03	167.98	20/02/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Dipping in tyre
-29.04	167.96	10/10/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Hand collection from water
-29.03	167.96	23/02/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Dipping from water tank and tyres
-29.03	167.94	24/02/2014	NA	NA	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	CO2 light trap (windy night)
-29.03	167.96	19/02/2014	Bromeliaceae	Unknown	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Dipping
-29.03	167.99	22/12/2012	Rutaceae	*Citrus ×limon* (L.) Osbeck	Diptera	Culicidae	*Aedes (Rampamyia) notoscriptus*	Y	Y	Beating
-29.02	167.95	24/02/2014	NA	NA	Diptera	Culicidae	*Aedes antipodeus* (Edwards, 1920)	N	N	CO2 light trap
-29.03	167.96	22/02/2014	NA	NA	Diptera	Culicidae	*Aedes antipodeus*	N	N	CO2 light trap – soda stream cylinder
-29.05	167.97	22/02/2014	NA	NA	Diptera	Culicidae	*Aedes antipodeus*	N	N	CO2 light trap
-29.03	167.99	22/03/2014	Apiaceae	*Daucus carota* L.	Thysanoptera	Aeolothripidae	*Aeolothrips fasciatus* (Linnaeus, 1758)	Y	Y	Hand collection
-29.00	167.93	24/12/2012	Asteraceae	*Lactuca sativa* L.	Thysanoptera	Aeolothripidae	*Aeolothrips fasciatus*	Y	Y	Hand collection from leaves
-29.05	167.93	29/11/2014; 12/07/2013	Fabaceae	*Medicago sativa*	Thysanoptera	Aeolothripidae	*Aeolothrips fasciatus*	Y	Y	Hand collection from flowers
-29.03	167.99	24/11/2014	Unknown	Unknown	Thysanoptera	Aeolothripidae	*Aeolothrips fasciatus*	Y	Y	Hand collection
-29.00	167.93	27/11/2014	Solanaceae	*Capsicum annuum* L.	Thysanoptera	Aeolothripidae	*Aeolothrips fasciatus*	Y	Y	Hand collection
-29.05	167.93	17/02/2014	Convolvulaceae	*Ipomoea cairica* (L.) Sweet	Coleoptera	Nitidulidae	*Aethina concolor* (Macleay, 1871)	Y	Y	Hand collection
-29.02	167.97	22/09/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Nitidulidae	*Aethina concolor*	Y	Y	Hand collection
-29.04	167.99	27/11/2014	Rutaceae	*Citrus ×aurantiifolia* (Christm.) Swingle	Trombidiformes	Tydeidae	*Afrotydeus* Baker, 1970	Y	?	Ethanol wash
-29.04	167.99	24/11/2014	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Tydeidae	*Afrotydeus* sp.	Y	?	Ethanol wash
-29.04	167.99	14/06/2013	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Tydeidae	*Afrotydeus* sp.	Y	?	Hand collection
-29.00	167.93	24/09/2013	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Tydeidae	*Afrotydeus* sp.	Y	?	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.93	13/06/2013	Rutaceae	*Citrus* sp.	Trombidiformes	Stigmaeidae	*Agistemus colyerae* González-Rodríguez, 1963	Y	Y	Hand collection
-29.06	167.94	11/10/2014	Combretaceae	*Terminalia catappa* L.	Trombidiformes	Stigmaeidae	*Agistemus longisetus* González-Rodríguez, 1963	Y	Y	Beating
-29.01	167.95	23/09/2013	Urticaceae	*Boehmeria australis*	Trombidiformes	Stigmaeidae	*Agistemus longisetus*	Y	Y	Hand collection
-29.04	167.99	25/09/2013	Malvaceae	*Lagunaria patersonia* (Andrews) G.Don	Trombidiformes	Stigmaeidae	*Agistemus novazelandicus* González-Rodríguez, 1963	Y	N	Hand collection
-29.04	167.99	24/11/2014	Rutaceae	*Citrus* ×*aurantium*	Trombidiformes	Stigmaeidae	*Agistemus novazelandicus*	Y	N	Ethanol wash
-29.01	167.93	25/11/2014	Malvaceae	*Lagunaria patersonia*	Trombidiformes	Stigmaeidae	*Agistemus subreticulatus* (Wood, 1967)	Y	N	Ethanol wash
-29.04	167.99	27/11/2014	Annonaceae	*Annona muricata* L.	Trombidiformes	Stigmaeidae	*Agistemus* Summers, 1960	Y	?	Ethanol wash
-29.00	167.93	12/06/2013	Rutaceae	*Citrus* ×*aurantium*	Trombidiformes	Stigmaeidae	*Agistemus* cf. *subreticulatus*	Y	N	Ethanol wash
-29.06	167.94	26/11/2014	NA	NA	Lepidoptera	Sphingidae	*Agrius convolvuli* (Linnaeus, 1758)	N	Y	Light trap
-29.05	167.92	19/05/2014	NA	NA	Lepidoptera	Noctuidae	*Agrotis ipsilon* (Hufnagel, 1766)	N	Y	Light trap
-29.03	167.96	19/02/2014	NA	NA	Lepidoptera	Noctuidae	*Agrotis ipsilon*	N	Y	Light trap
-29.01	167.94	23/05/2014	NA	NA	Lepidoptera	Noctuidae	*Agrotis ipsilon*	N	Y	Light trap
-29.03	167.96	25/05/2014	NA	NA	Lepidoptera	Noctuidae	*Agrotis ipsilon*	N	Y	Light trap 25-5
-29.03	167.97	22/05/2014	NA	NA	Lepidoptera	Noctuidae	*Agrotis ipsilon*	N	Y	Light trap
-29.05	167.96	20/02/2014	NA	NA	Lepidoptera	Noctuidae	*Agrotis ipsilon*	N	Y	Light trap
-29.01	167.92	16/10/2014	Araucariaceae	*Araucaria heterophylla*	Stylommatophora	Microcystidae	*Allenoconcha basispiralis* Preston, 1913	N	N	Hand collection
-29.02	167.97	22/09/2013	NA	NA	Stylommatophora	Microcystidae	*Allenoconcha basispiralis*	N	N	Hand collection on rocks
Unknown	Unknown	18/07/2013	Araucariaceae	*Araucaria heterophylla*	Stylommatophora	Microcystidae	*Allenoconcha basispiralis*	N	N	Unknown
-29.02	167.97	22/09/2013	NA	NA	Stylommatophora	Subulinidae	*Allopeas clavulinus* (Potiez & Michaud, 1838)	N	Y	Hand collection on rocks
-29.03	167.93	12/06/2013	Cucurbitaceae	*Cucumis sativus* L.	Stylommatophora	Subulinidae	*Allopeas clavulinus*	N	Y	Hand collection
-29.01	167.95	26/12/2012	NA	NA	Hemiptera	Membracidae	*Alosextius carinatus* (Funkhouser, 1927)	Y	Y	Beating
-29.00	167.93	26/12/2012	Musaceae, Asteraceae	*Musa* L., *Lactua sativa*	Diptera	Dolichopodidae	*Amblypsilopus careelensis* Bickel, 1994	N	Y	Yellow pan
-29.00	167.93	24/11/2014	Araucariaceae	*Araucaria heterophylla*	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus* (Chant, 1959)	Y	Y	Ethanol wash

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.98	27/11/2014	Caricaceae	*Carica papaya* L.	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Ethanol wash
-29.02	167.93	27/11/2014	Cannabaceae	*Celtis paniculata* (Endl.) Planch	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Ethanol wash
-29.04	167.99	27/11/2014	Rutaceae	*Citrus ×aurantiifolia*	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Ethanol wash
-29.0	167.99	24/11/2014	Rutaceae	*Citrus ×aurantium*	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Ethanol wash
-29.00	167.93	12/06/2013	Rutaceae	*Citrus ×aurantium*	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Hand collection
-29.04	167.99	27/11/2014	Rutaceae	*Citrus ×aurantium*	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Ethanol wash
-29.00	167.93	26/11/2014; 24/09/2013	Rutaceae	*Citrus ×aurantium*	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Ethanol wash
-29.04	167.99	24/11/2014	Rutaceae	*Citrus ×limon*	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Ethanol wash
-29.04	167.99	27/11/2014	Rutaceae	*Citrus reticulata* Blanco	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Ethanol wash
-29.06	167.94	11/10/2014	Rutaceae	*Citrus* sp.	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Beating
-29.03	167.95	22/09/2013	Rutaceae	*Citrus* sp.	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Hand collection
-29.05	167.92	7/10/2014	Asparagaceae	*Cordyline obtecta*	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Beating
-29.04	167.99	27/11/2014	Moraceae	*Ficus carica*	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Ethanol wash
-29.00	167.93	12/06/2013	Arecaceae	*Howea forsteriana* (C.Moore & F.Muell.) Becc.	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Hand collection
-29.05	167.92	26/11/2014	Malvaceae	*Lagunaria patersonia*	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Ethanol wash
-29.01	167.93	13/06/2013	Proteaceae	*Macadamia integrifolia* Maiden & Betche	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Beating
-29.04	167.99	27/11/2014	Rosaceae	*Malus pumila* Mill.	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Ethanol wash
-29.05	167.94	22/09/2013	Anacardiaceae	*Mangifera indica* L.	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Hand collection
-29.04	167.99	27/11/2014	Anacardiaceae	*Mangifera indica*	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Ethanol wash
-29.03	167.92	22/05/2014	Passifloraceae	*Passiflora edulis* f. *flavicarpa* O.Deg.	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Beating
-29.04	167.99	27/11/2014	Rosaceae	*Prunus persica* var. *nucipersica* (Suckow) C.K.Schneid.	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Ethanol wash

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.93	16/10/2014	Myrtaceae	*Psidium cattleyanum* var. *cattleyanum*	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Hand collection
-29.04	167.99	27/11/2014	Rosaceae	*Pyrus communis* L.	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Ethanol wash
-29.06	167.94	11/10/2014	Combretaceae	*Terminalia catappa*	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Beating
-29.03	167.96	25/11/2014	Unknown	Unknown	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Ethanol wash
-29.05	167.96	9/10/2014	Vitaceae	*Vitis vinifera* L.	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Beating
-29.04	167.98	27/11/2014	Vitaceae	*Vitis vinifera*	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Ethanol wash
-29.03	167.92	22/05/2014	Vitaceae	*Vitis vinifera*	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Beating of grape vine growing over *Citrus* sp.
-29.04	167.99	27/11/2014	Annonaceae	*Annona muricata*	Mesostigmata	Phytoseiidae	*Amblyseius herbicolus*	Y	Y	Ethanol wash
-29.03	167.93	27/11/2014	Solanaceae	*Solanum lycopersicum*	Mesostigmata	Phytoseiidae	*Amblyseius* Berlese, 1914	Y	?	Ethanol wash
-29.02	167.93	27/11/2014	Fabaceae	*Trifolium* L.	Mesostigmata	Phytoseiidae	*Amblyseius* sp.	Y	?	Ethanol wash
-29.00	167.93	12/06/2013	Rutaceae	*Citrus ×aurantium*	Mesostigmata	Ameroseiidae	*Ameroseius* Berlese, 1903	Y	?	Hand collection
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Mesostigmata	Ameroseiidae	*Ameroseius* sp.	Y	?	Berlese funnel of leaf litter under palms
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Mesostigmata	Ameroseiidae	*Ameroseius ornatus* Womersley, 1956	Y	Y	Berlese funnel of leaf litter under palms
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Mesostigmata	Ameroseiidae	*Ameroseius sextuberculi* Karg, 1996	Y	N	Berlese funnel of leaf litter under palms
-29.00	167.93	23 - 24/03/2014	Various		Hymenoptera	Ichneumonidae	*Anacis* Porter, 1967	Y	?	Yellow pan in various vegetables
-29.05	167.93	25/03/2014	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Anaglyptothrips dugdalei* Mound & Palmer, 1983	Y	Y	Hand collection
-29.03	167.99	22/03/2014	Fagaceae	*Quercus* L.	Thysanoptera	Phlaeothripidae	*Anaglyptothrips dugdalei*	Y	Y	Hand collection in leaf litter
-29.02	167.95	22/11/2014	Rubiaceae	*Pentas lanceolata* (Forssk.) Deflers	Thysanoptera	Thripidae	*Anaphothrips dubius* (Girault, 1926)	Y	Y	Hand collection
-29.02	167.95	21/03/2014	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Anaphothrips dubius*	Y	Y	Hand collection
-29.03	167.92	21/05/2014	Solanaceae	*Solanum lycopersicum*	Thysanoptera	Thripidae	*Anaphothrips dubius*	Y	Y	Beating
-29.04	167.99	25/11/2014	Asteraceae	*Bidens pilosa* L.	Thysanoptera	Thripidae	*Anaphothrips dubius*	Y	Y	Hand collection
-29.03	167.99	21/02/2014	Fabaceae	*Glycine max*	Thysanoptera	Thripidae	*Anaphothrips obscurus* (Müller, 1776)	Y	Y	Hand collection
-29.03	167.99	23/10/2013	Poaceae	*Cenchrus clandestinus* (Hochst ex Chiov.) Morrone	Thysanoptera	Thripidae	*Anaphothrips sudanensis* Trybom, 1911	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.02	167.95	23/12/2012	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Thripidae	*Anaphothrips sudanensis*	Y	Y	Hand collection
-29.05	167.98	24/03/2014	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Thripidae	*Anaphothrips sudanensis*	Y	Y	Hand collection from leaf bases
-29.03	167.99	22/03/2014	Chenopodiaceae	*Chenopodium* L.	Thysanoptera	Thripidae	*Anaphothrips sudanensis*	Y	Y	Hand collection from flowers
-29.03	167.99	9/07/2013	NA	NA	Thysanoptera	Thripidae	*Anaphothrips sudanensis*	Y	Y	Hand collection from grassy fence
-29.02	167.96	9/07/2013	Poaceae	*Saccharum officinarum* L.	Thysanoptera	Thripidae	*Anaphothrips sudanensis*	Y	Y	Hand collection from dead sugar cane leaves
-29.03	167.92	23/11/2014	Poaceae, Cyperaceae	Unknown	Thysanoptera	Thripidae	*Anaphothrips sudanensis*	Y	Y	Hand collection
-29.03	167.99	22/12/2012	Poaceae	Unknown	Thysanoptera	Thripidae	*Anaphothrips sudanensis*	Y	Y	Hand collection
-29.01	167.92	26/11/2014	Poaceae	Unknown	Thysanoptera	Thripidae	*Anaphothrips sudanensis*	Y	Y	Hand collection
-29.03	167.99	22/10/2013	Poaceae, Fabaceae	*Zea mays* L., *Trifolium* sp.	Thysanoptera	Thripidae	*Anaphothrips sudanensis*	Y	Y	Hand collection from corn male flowers
-29.00	167.93	22/12/2013	Various		Thysanoptera	Thripidae	*Anaphothrips sudanensis*	Y	Y	Hand collection
-29.03	167.92	23/11/2014	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Thripidae	*Anaphothrips sudanensis*	Y	Y	Hand collection
-29.01	167.93	27/02/2014	NA	NA	Coleoptera	Curculionidae	*Ancyttalia* Zimmerman, 1994	Y	?	Light trap
-29.01	167.93	3/12/2014	NA	NA	Coleoptera	Curculionidae	*Ancyttalia* sp.	Y	?	Light trap in eucalypt forest
-29.01	167.94	2/12/2014	NA	NA	Coleoptera	Curculionidae	*Ancyttalia* sp.	Y	?	Light trap in Norfolk Island pines
-29.03	167.97	28/11/2014	NA	NA	Coleoptera	Curculionidae	*Ancyttalia* sp.	Y	?	Light trap
-29.01	167.95	23/09/2013	Rosaceae	*Rosa* L.	Coleoptera	Curculionidae	*Ancyttalia* sp.	Y	?	Hand collection
-29.036984	167.99122	25/09/2013	Vitaceae	*Vitis vinifera*	Coleoptera	Curculionidae	*Ancyttalia* sp.	Y	?	Hand collection from leaves
-29.04	167.93	11/11/2013	Anacardiaceae	*Mangifera indica*	Coleoptera	Curculionidae	*Ancyttalia* sp.	Y	?	Hand collection from flowers
-29.03	167.99	24/12/2012	Cucurbitaceae	*Cucurbita pepo* L.	Coleoptera	Anthicidae	*Anthicus* Paykull, 1798	Y	?	Yellow pan in bare soil beside curcubits
-29.03	167.99	23/12/2012	Solanaceae	*Solanum melongena* L.	Coleoptera	Anthicidae	*Anthicus* sp.	Y	?	Yellow pan
-29.05	167.98	29/05/2014; 21/06/2014; 24/06/2014; 17/07/2014	NA	NA	Diptera	Anthomyiidae	*Anthomyia punctipennis* Wiedemann, 1830	Y	Y	Bezzilure trap
-29.05	167.97	12/06/2014; 24/06/2014	NA	NA	Diptera	Anthomyiidae	*Anthomyia punctipennis*	Y	Y	Bezzilure trap
-29.05	167.96	6/06/2014	NA	NA	Diptera	Anthomyiidae	*Anthomyia punctipennis*	Y	Y	Bezzilure trap

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.05	167.96	17/07/2014; 2/07/2014; 2/06/2014; 12/06/2014; 24/06/2014; 10/06/2014;	NA	NA	Diptera	Anthomyiidae	*Anthomyia punctipennis*	Y	Y	Bezzilure trap
-29.05	167.93	24/06/2014; 2/07/2014	NA	NA	Diptera	Anthomyiidae	*Anthomyia punctipennis*	Y	Y	Bezzilure trap
-29.05	167.97	12/06/2014; 24/06/2014; 17/07/2014; 12/12/2014; 2/07/2014	NA	NA	Diptera	Anthomyiidae	*Anthomyia punctipennis*	Y	Y	Bezzilure trap
-29.03	167.96	25/05/2014	NA	NA	Diptera	Anthomyiidae	*Anthomyia punctipennis*	Y	Y	Light trap
-29.03	167.93	24/06/2014; 2/07/2014; 24/07/2014; 10/06/2014	NA	NA	Diptera	Anthomyiidae	*Anthomyia punctipennis*	Y	Y	Bezzilure trap
-29.03	167.98	2/07/2014; 29/05/2014; 02/06/2014; 12/06/2014;	NA	NA	Diptera	Anthomyiidae	*Anthomyia punctipennis*	Y	Y	LuciLure trap
-29.03	167.99	23/10/2013	Various	NA	Diptera	Anthomyiidae	*Anthomyia punctipennis*	Y	Y	Yellow pan
-29.02	167.97	2/07/2014; 12/06/2014; 17/07/2014; 24/06/2014	NA	NA	Diptera	Anthomyiidae	*Anthomyia punctipennis*	Y	Y	LuciLure trap
-29.01	167.92	10/06/2014; 24/06/2014	NA	NA	Diptera	Anthomyiidae	*Anthomyia punctipennis*	Y	Y	LuciLure trap
-29.01	167.56	2/07/2014	NA	NA	Diptera	Anthomyiidae	*Anthomyia punctipennis*	Y	Y	Blowfly trap
-29.03	167.96	20/02/2014	NA	NA	Diptera	Anthomyiidae	*Anthomyia punctipennis*	Y	Y	Light trap
-29.03	167.94	23/09/2013	Anacardiaceae	*Schinus terebinthifolius* Raddi	Diptera	Anthomyiidae	*Anthomyia punctipennis*	Y	Y	Sweep net
-29.03	167.98	25/09/2013	Apiaceae	*Daucus carota*	Diptera	Anthomyiidae	*Anthomyia punctipennis*	Y	Y	Sweep net
-29.03	167.94	19/02/2014	Poaceae	Unknown	Hymenoptera	Chalcididae	*Antrocephalus* Kirby, 1883	Y	?	Hand collection
-29.02	167.95	25/12/2012	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Anystidae	*Anystis baccarum* (Linnaeus, 1758)	Y	Y	Yellow pan

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.12	167.96	15/10/2014; 14/10/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Anystidae	*Anystis baccarum*	Y	Y	Beating
-29.12	167.95	14/10/2014	Rubiaceae	*Coprosma baueri* Endl.	Trombidiformes	Anystidae	*Anystis baccarum*	Y	Y	Beating
-29.02	167.93	25/02/2014	Rubiaceae	*Coprosma* J.R.Forst. & G.Forst.	Trombidiformes	Anystidae	*Anystis baccarum*	Y	Y	Sweep net
-29.06	167.97	25/05/2014	Malvaceae	*Hibiscus rosa-sinensis* L.	Trombidiformes	Anystidae	*Anystis baccarum*	Y	Y	Beating
-29.12	167.96	15/10/2014	Malvaceae	*Lagunaria patersonia*	Trombidiformes	Anystidae	*Anystis baccarum*	Y	Y	Beating
-29.12	167.95	14/10/2014	Malvaceae	*Lagunaria patersonia*	Trombidiformes	Anystidae	*Anystis baccarum*	Y	Y	Hand collection and beating
-29.03	167.99	23/05/2014	Euphorbiaceae	*Ricinus communis* L.	Trombidiformes	Anystidae	*Anystis baccarum*	Y	Y	Beating
-29.04	167.94	23/09/2013	Anacardiaceae	*Schinus terebinthifolius*	Trombidiformes	Anystidae	*Anystis baccarum*	Y	Y	Sweep net
-29.01	167.93	21/05/2014	Solanaceae	*Solanum mauritianum* Scop.	Trombidiformes	Anystidae	*Anystis baccarum*	Y	Y	Beating
-29.00	167.94	24/02/2014	Unknown	Unknown	Trombidiformes	Anystidae	*Anystis baccarum*	Y	Y	Hand collection from dead wood
-29.05	167.96	9/10/2014	Vitaceae	*Vitis vinifera*	Trombidiformes	Anystidae	*Anystis baccarum*	Y	Y	Beating
-29.12	167.95	14/10/2014	Cucurbitaceae	*Zehneria baueriana* Endl.	Trombidiformes	Anystidae	*Anystis baccarum*	Y	Y	Hand collection
-29.04	167.96	26/02/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Anystidae	*Anystis baccarum*	Y	Y	Hand collection
-29.13	167.95	14/10/2014	Amaranthaceae	*Achyranthes aspera* L.	Trombidiformes	Anystidae	*Anystis* von Heyden, 1826	Y	?	Beating
-29.02	167.96	10/06/2013	Asparagaceae	*Cordyline obtecta*	Hemiptera	Cicadellidae	*Anzygina* Fletcher & Larrivière, 2009	?	?	Hand collection extensive damage to plant
-29.03	167.98	25/09/2013	Fabaceae	*Phaseolus vulgaris* L.	Hemiptera	Cicadellidae	*Anzygina* sp.	?	?	Hand collection plants damaged by leafhoppers
-29.01	167.94	24/05/2014	Cyatheaceae	*Cyathea brownii* Domin	Hemiptera	Cicadellidae	*Anzygina jowettae* (Knights, 1976)	N	N	Beating
-29.03	167.94	24/05/2014	Asparagaceae	*Cordyline obtecta*	Hemiptera	Cicadellidae	*Anzygina* sp nov. NI01	Y	?	Sweep net
-29.03	167.92	21/05/2014	Asparagaceae	*Cordyline* Comm. ex R.Br.	Hemiptera	Cicadellidae	*Anzygina* sp. nov. NI01	Y	?	Beating
-29.06	167.96	24/05/2014	Asparagaceae	*Cordyline* sp.	Hemiptera	Cicadellidae	*Anzygina* sp. nov. NI01	Y	?	Hand collection
-29.03	167.98	25/09/2013	Fabaceae	*Phaseolus vulgaris*	Hemiptera	Cicadellidae	*Anzygina* sp. nov. NI01	Y	?	Hand collection, plant badly damaged
-29.03	167.98	21/05/2014	Fabaceae	*Phaseolus* sp.	Hemiptera	Cicadellidae	*Anzygina* sp. nov. NI02	Y	?	Beating
-29.03	167.98	25/09/2013	Fabaceae	*Phaseolus vulgaris*	Hemiptera	Cicadellidae	*Anzygina* sp. nov. NI02	Y	?	Hand collecto, plant badly damaged

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.94	24/02/2014	NA	NA	Hymenoptera	Braconidae	*Apanteles* Foerster, 1862	?	?	Light trap
-29.03	167.99	23/12/2012	Solanaceae	*Solanum melongena*	Hymenoptera	Braconidae	*Apanteles* sp.	?	?	Yellow pan
-29.03	167.93	12/06/2013	Asteraceae	*Lactuca sativa*	Hemiptera	Aphididae	*Aphis* Linnaeus, 1758	?	?	Hand collection
-29.01	167.93	13/06/2013	Solanaceae	*Solanum mauritianum*	Hemiptera	Aphididae	*Aphis* sp.	?	?	Beating
-29.01	167.95	25/12/2012	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Aphididae	*Aphis gossypii* Glover, 1877	N	Y	Yellow pan
-29.06	167.94	26/02/2014	Asteraceae	*Bidens pilosa*	Hemiptera	Aphididae	*Aphis gossypii*	N	Y	Hand collection
-29.12	167.95	14/10/2014	Asteraceae	*Bidens pilosa*	Hemiptera	Aphididae	*Aphis gossypii*	N	Y	Hand collection
-29.12	167.95	14/10/2014	Verbenaceae	*Lantana camara* L.	Hemiptera	Aphididae	*Aphis gossypii*	N	Y	Hand collection
-29.03	167.94	11/06/2013	Araliaceae	*Meryta latifolia* (Endl.) Seem.	Hemiptera	Aphididae	*Aphis gossypii*	N	Y	Hand collection leaf curl – large numbers of aphids on underside of leaves
-29.00	167.93	26/12/2012	Lamiaceae, Brassicaceae, Musaceae	*Ocimum basilicum* L., *Musa* sp.	Hemiptera	Aphididae	*Aphis gossypii*	N	Y	Yellow pan
-29.02	167.96	10/06/2013	Solanaceae	*Solanum melongena*	Hemiptera	Aphididae	*Aphis gossypii*	N	Y	Hand collection
-29.04	167.96	27/02/2014	Various		Hemiptera	Aphididae	*Aphis gossypii*	N	Y	Yellow pan in young vegetable seedlings
-29.04	167.99	28/11/2014	Annonaceae	*Annona muricata*	Hemiptera	Aphididae	*Aphis gossypii*	N	Y	Hand collection
-29.04	167.96	10/10/2014	Apocynaceae	*Nerium oleander* L.	Hemiptera	Aphididae	*Aphis nerii* Doyer de Fonscolombe, 1841	Y	Y	Beating and hand collection
-29.12	167.95	14/10/2014	Apocynaceae	*Grompbocarpus physocarpus* E.Mey.	Hemiptera	Aphididae	*Aphis nerii*	Y	Y	Hand collection
-29.03	167.96	11/10/2014; 27/11/2014	NA	NA	Coleoptera	Scarabaeidae	*Aphodius* Illiger, 1798	?	?	Light trap Set 11.10.14, collected 12.10.2014
-29.05	167.95	20/02/2014; 12/10/2014	NA	NA	Coleoptera	Scarabaeidae	*Aphodius lividus* (Olivier, 1789)	N	Y	Light trap
-29.03	167.96	23/02/2014	NA	NA	Coleoptera	Scarabaeidae	*Aphodius lividus*	N	Y	Light trap
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Scarabaeidae	*Aphodius lividus*	N	Y	Light trap
-29.03	167.97	27/11/2014	NA	NA	Coleoptera	Scarabaeidae	*Aphodius lividus*	N	Y	Light trap
-29.03	167.98	24/05/2014	NA	NA	Coleoptera	Scarabaeidae	*Aphodius lividus*	N	Y	Ctilicoides trap Set 24.5.2014, collected 27.5.2014
-29.00	167.93	20/02/2014	Rutaceae	*Citrus ×aurantium*	Coleoptera	Scarabaeidae	*Aphodius lividus*	N	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.93	27/02/2014	Various		Hymenoptera	Apidae	*Apis mellifera* Linnaeus, 1758	N	Y	Yellow pan
-29.03	167.97	7/10/2014	Araucariaceae	*Araucaria heterophylla*	Hymenoptera	Apidae	*Apis mellifera*	N	Y	Hand collection
-29.03	167.94	10/10/2014	Poaceae	*Digitaria* sp.	Hymenoptera	Apidae	*Apis mellifera*	N	Y	Sweep net
-29.03	167.94	10/10/2014	Proteaceae	*Macadamia integrifolia*	Hymenoptera	Apidae	*Apis mellifera*	N	Y	Sweep net
-29.05	167.97	12/06/2014; 1/10/2014; 25/10/2014	NA	NA	Hymenoptera	Apidae	*Apis mellifera*	N	Y	Bezzilure trap
-29.04	167.99	25/09/2013	NA	NA	Hymenoptera	Apidae	*Apis mellifera*	N	Y	Hand collection
-29.03	167.98	25/08/2014	NA	NA	Hymenoptera	Apidae	*Apis mellifera*	N	Y	LuciLure trap
-29.01	167.93	3/12/2014	NA	NA	Hymenoptera	Apidae	*Apis mellifera*	N	Y	Light trap in eucalypt forest
-29.13	167.95	14/10/2014	NA	NA	Hymenoptera	Apidae	*Apis mellifera*	N	Y	Hand collection
-29.03	167.97	7/10/2014	Polygalaceae	*Polygala myrtifolia* L.	Hymenoptera	Apidae	*Apis mellifera*	N	Y	Sweep net
-29.03	167.99	23/12/2012	Solanaceae	*Solanum lycopersicum*	Hymenoptera	Apidae	*Apis mellifera*	N	Y	Yellow pan
-29.04	167.99	8/10/2014	Fabaceae	*Trifolium repens* var. *repens*	Hymenoptera	Apidae	*Apis mellifera*	N	Y	Sweep net
-29.03	167.99	23/10/2013	Various		Hymenoptera	Apidae	*Apis mellifera*	N	Y	Yellow pan
-29.00	167.93	23/12/2012	Various		Hymenoptera	Apidae	*Apis mellifera*	N	Y	Yellow pan
-29.00	167.93	22/02/2014	NA	NA	Lepidoptera	Gelechiidae	*Aproaerema simplexella* (Walker, 1864)	N	Y	Bucket light trap in orchard
-29.037	167.99	24/12/2013	Rutaceae, Moraceae, unknown	*Murraya* J.Koenig ex L., *Morus* L., unknown	Thysanoptera	Thripidae	*Apterothrips apteris* (Daniel, 1904)	Y	Y	Hand collection from dead wood
-29.04	167.99	23/11/2014; 24/12/2014	Apiaceae	*Petroselinum crispum* (Mill.) Fuss	Thysanoptera	Thripidae	*Apterothrips apteris*	Y	Y	Hand collection
-29.035	167.94	25/11/2014	Fabaceae	*Trifolium* sp.	Thysanoptera	Thripidae	*Apterothrips apteris*	Y	Y	Hand collection from flowers
-29.04	167.99	24/12/2013	Unknown	Unknown	Thysanoptera	Thripidae	*Apterothrips apteris*	Y	Y	Hand collection from dead plant
-29.03	167.94	28/11/2014	Fabaceae	*Arachis pintoi* Krapov. & W.C.Greg.	Thysanoptera	Thripidae	*Apterothrips apteris*	Y	Y	Hand collection from flowers
-29.00	167.93	23/03/2014	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Phlaeothripidae	*Apterygothrips australis*	Y	Y	Hand collection from leaf bases
-29.00	167.94	24/03/2014	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Apterygothrips australis*	Y	Y	Hand collection from litter

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.96	21/12/2013	Various		Thysanoptera	Phlaeothripidae	*Apterygothrips australis*	Y	Y	Hand collection from leaves, flowers and grasses
-29.00	167.94	24/03/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Apterygothrips australis* Pitkin, 1973	Y	Y	Hand collection from leaf litter
-29.03	167.99	21/12/2013	Poaceae	*Cenchrus purpureus* (Schumach.) Morrone	Thysanoptera	Phlaeothripidae	*Apterygothrips sparsus* Mound & Walker, 1986	Y	Y	Hand collection from dead grass
-29.02	167.96	23/10/2013	Pittosporaceae	*Pittosporum* Banks ex Gaertn.	Thysanoptera	Phlaeothripidae	*Apterygothrips sparsus*	Y	Y	Hand collection from leaves
-29.02	167.96	9/07/2013	Poaceae	*Saccharum officinarum*	Thysanoptera	Phlaeothripidae	*Apterygothrips sparsus*	Y	Y	Hand collection from dead sugar cane leaves
-29.03	167.93	22/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Apterygothrips sparsus*	Y	Y	Hand collection
-29.01	167.93	25/11/2014	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Apterygothrips sparsus*	Y	Y	Hand collection from eucalypt forest
-29.03	167.99	22/12/2012	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Apterygothrips sparsus*	Y	Y	Hand collection in grass
-29.05	167.98	24/03/2014	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Phlaeothripidae	*Apterygothrips sparsus*	Y	Y	Hand collection from leaf bases
-29.04	167.99	22/12/2012	Poaceae	Unknown	Thysanoptera	Thripidae	*Aptinothrips rufus* (Haliday, 1836)	Y	Y	Hand collection
-29.05	167.93	29/11/2014	Fabaceae	*Medicago sativa*	Thysanoptera	Thripidae	*Aptinothrips rufus*	Y	Y	Hand collection from flowers
-29.02	167.93	25/02/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Anthribidae	*Araeocerodes* Blackburn, 1900	?	?	Hand collection from under bark of billets
-29.01	167.93	20/05/2014	Myrtaceae	*Eucalyptus* sp.	Coleoptera	Anthribidae	*Araeocerodes* sp.	?	?	Sweep net in eucalypt forest, leaf litter and fallen timber
-29.01	167.94	11/06/2013	Meliaceae	*Dysoxylum bijugum* (Labill.) Seem.	Coleoptera	Chrysomelidae	*Argopistes armipes* (Lea, 1926)	N	N	Hand collection
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Trombidiformes	Cunaxidae	*Armascirus lebowensis* Heyer, 1978?	Y	?	Berlese funnel of leaf litter under palms
-29.12	167.96	15/10/2014	Solanaceae	*Solanum nodiflorum* Jacq.	Coleoptera	Chrysomelidae	*Arsipoda* Erichson, 1842	Y	?	Beating
-29.01	167.95	25/12/2012	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Corylophidae	*Arthrolips* Wollaston, 1854	Y	?	Yellow pan under plant
-29.01	167.93	20/05/2014	Myrtaceae	*Eucalyptus* sp.	Coleoptera	Corylophidae	*Arthrolips* sp.	Y	?	Sweep net in eucalypt forest
-29.02	167.92	25/05/2014	Myrtaceae	*Eucalyptus* sp.	Coleoptera	Corylophidae	*Arthrolips* sp.	Y	?	Trapping from eucalypt litter
-29.05	167.92	23/05/2014	Convolvulaceae	*Ipomoea cairica*	Coleoptera	Corylophidae	*Arthrolips* sp.	Y	?	Beating
-29.12	167.95	15/10/2014	Fabaceae	*Lupinus* L.	Coleoptera	Corylophidae	*Arthrolips* sp.	Y	?	Beating
-29.03	167.93	12/06/2013	Musaceae	*Musa* sp.	Coleoptera	Corylophidae	*Arthrolips* sp.	Y	?	Beating
-29.02	167.96	13/10/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Corylophidae	*Arthrolips* sp.	Y	?	Hand collection from felled tree 10 months old

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.93	20/06/2013	Various		Mesostigmata	Ascidae	*Asca* von Heyden, 1826	Y	?	Hand collection
-29.03	167.92	21/05/2014	Anacardiaceae	*Mangifera indica*	Hemiptera	Diaspididae	*Aspidiotus nerii* Bouché, 1833	N	Y	Hand collection
-29.02	167.96	10/06/2013	Araliaceae	*Meryta angustifolia* (Endl.) Seem	Hemiptera	Diaspididae	*Aspidiotus nerii*	N	Y	Hand collection
-29.03	167.92	21/05/2014	Arecaceae	*Howea* Becc.	Hemiptera	Diaspididae	*Aspidiotus nerii*	N	Y	Hand collection
-29.04	167.99	14/06/2013	Rutaceae	*Citrus* ×*aurantium*	Thysanoptera	Thripidae	*Asprothrips seminigricornis* (Girault, 1926)	Y	Y	Hand collection
-29.01	167.93	13/06/2013	Rutaceae	*Citrus* sp.	Thysanoptera	Thripidae	*Asprothrips seminigricornis*	Y	Y	Hand collection
-29.04	167.96	26/03/2014	Rutaceae	*Citrus* sp.	Thysanoptera	Thripidae	*Asprothrips seminigricornis*	Y	Y	Hand collection from young leaves
-29.04	167.99	24/12/2013; 24/03/2014; 25/12/2014	Rutaceae	*Citrus* sp.	Thysanoptera	Thripidae	*Asprothrips seminigricornis*	Y	Y	Hand collection from young leaves
-29.04	167.99	25/09/2013	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Thripidae	*Asprothrips seminigricornis*	Y	Y	Hand collection
-29.02	167.94	25/05/2014	NA	NA	Thysanoptera	Thripidae	*Asprothrips seminigricornis*	Y	Y	Trapping from leaf litter
-29.03	167.95	26/09/2013	Passifloraceae	*Passiflora edulis* Sims	Thysanoptera	Thripidae	*Asprothrips seminigricornis*	Y	Y	Hand collection
-29.04	167.99	25/09/2013	Passifloraceae	*Passiflora edulis*	Thysanoptera	Thripidae	*Asprothrips seminigricornis*	Y	Y	Hand collection from leaves
-29.04	167.97	27/11/2014	Passifloraceae	*Passiflora* L.	Thysanoptera	Thripidae	*Asprothrips seminigricornis*	Y	Y	Hand collection
-29.04	167.99	25/11/2014	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Asprothrips seminigricornis*	Y	Y	Hand collection from leaves
-29.01	167.94	23/12/2013	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Asprothrips seminigricornis*	Y	Y	Hand collection from leaves
-29.02	167.96	25/12/2013	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Asprothrips seminigricornis*	Y	Y	Hand collection
-29.02	167.95	25/12/2013	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Asprothrips seminigricornis*	Y	Y	Hand collection from young leaves
-29.01	167.95	22/11/2014	Myrtaceae	*Psidium cattleyanum* var. *cattleyanum*	Thysanoptera	Thripidae	*Asprothrips seminigricornis*	Y	Y	Hand collection from dead branch
-29.02	167.96	26/12/2013; 25/03/2014	Euphorbiaceae	*Vernicia fordii* (Hemsl.) Airy Shaw	Thysanoptera	Thripidae	*Asprothrips seminigricornis*	Y	Y	Hand collection from young leaves
-29.04	167.94	21/11/2014	Lamiaceae	*Vitex trifolia* L.	Thysanoptera	Thripidae	*Asprothrips seminigricornis*	Y	Y	Hand collection
-29.04	167.99	14/06/2013	Rutaceae	*Casimiroa edulis* La Llave & Lex.	Thysanoptera	Thripidae	*Asprothrips seminigricornis*	Y	Y	Hand collection
-29.00	167.93	24/10/2013	Various		Coleoptera	Scarabaeidae	*Ataenius* Harold, 1867	?	?	Yellow pan among various young vegetables
-29.05	167.92	26/11/2014	NA	NA	Coleoptera	Scarabaeidae	*Ataenius* sp.	?	?	Light trap

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Scarabaeidae	*Ataenius* sp.	?	?	Light trap
-29.03	167.95	7/10/2014	NA	NA	Coleoptera	Scarabaeidae	*Ataenius picinus* Harold, 1867	N	Y	Light trap
-29.01	167.92	16/10/2014	NA	NA	Coleoptera	Scarabaeidae	*Ataenius picinus*	N	Y	Light trap
-29.05	167.95	20/02/2014	NA	NA	Coleoptera	Scarabaeidae	*Ataenius picinus*	N	Y	Light trap
-29.06	167.94	22/09/2013	Various		Diptera	Muscidae	*Atherigona* Rondani, 1856	?	?	Sweep net
-29.06	167.97	24/06/2014	NA	NA	Diptera	Muscidae	*Atherigona* sp.	?	?	Bezzilure trap
-29.06	167.96	6/06/2014	NA	NA	Diptera	Muscidae	*Atherigona* sp.	?	?	Bezzilure trap
-29.06	167.96	2/07/2014; 12/06/2014; 24/06/2014	NA	NA	Diptera	Muscidae	*Atherigona* sp.	?	?	Bezzilure trap
-29.05	167.92	19/05/2014	NA	NA	Diptera	Muscidae	*Atherigona* sp.	?	?	Light trap
-29.03	167.93	10/06/2014	NA	NA	Diptera	Muscidae	*Atherigona* sp.	?	?	Bezzilure trap
-29.01	167.94	24/02/2014	NA	NA	Diptera	Muscidae	*Atherigona* sp.	?	?	Light trap
-29.00	167.93	21/02/2014	NA	NA	Diptera	Muscidae	*Atherigona* sp.	?	?	Bucket light trap in citrus and avocado trees
-29.03	167.96	23/02/2014	NA	NA	Diptera	Muscidae	*Atherigona* sp.	?	?	Light trap in garden
-29.04	167.94	28/02/2014	NA	NA	Lepidoptera	Noctuidae	*Athetis temuis* (Butler, 1886)	N	Y	Light trap
-29.00	167.93	22/02/2014	NA	NA	Lepidoptera	Noctuidae	*Athetis temuis*	N	Y	Bucket light trap in orchard
-29.05	167.95	20/02/2014	NA	NA	Lepidoptera	Noctuidae	*Athetis temuis*	N	Y	Light trap
-29.05	167.92	19/05/2014	NA	NA	Lepidoptera	Noctuidae	*Athetis thoracica* (Moore, 1884)	Y	Y	Light trap
-29.03	167.94	26/05/2014	NA	NA	Lepidoptera	Noctuidae	*Athetis thoracica*	Y	Y	Light trap
-29.01	167.95	23/05/2014	NA	NA	Lepidoptera	Noctuidae	*Athetis thoracica*	Y	Y	Light trap
-29.00	167.93	22/02/2014	NA	NA	Lepidoptera	Noctuidae	*Athetis thoracica*	Y	Y	Bucket light trap
-29.03	167.97	22/05/2014	NA	NA	Lepidoptera	Noctuidae	*Athetis thoracica*	Y	Y	Light trap
-29.05	167.95	20/02/2014	NA	NA	Lepidoptera	Noctuidae	*Athetis thoracica*	Y	Y	Light trap
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Mesostigmata	Ologamasidae	*Athiasella* Lee, 1973	Y	?	Berlese funnel from leaf litter under palms
-29.00	167.93	24/09/2013	Cucurbitaceae	*Cucurbita maxima* Lam.	Hemiptera	Aphididae	*Aulacorthum solani* (Kaltenbach, 1843)	Y	Y	Sweep net
-29.03	167.93	12/06/2013; 26/09/2013	Asteraceae	*Lactuca sativa*	Hemiptera	Aphididae	*Aulacorthum solani*	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.93	24/09/2013	Solanaceae	*Solanum lycopersicum*	Hemiptera	Aphididae	*Aulacorthum solani*	Y	Y	Hand collection
-29.01	167.93	13/06/2013	Rubiaceae	*Coffea* L.	Hemiptera	Aphididae	*Aulacorthum solani*	Y	Y	Beating
-29.06	167.97	24/05/2014	Brassicaceae	*Lobularia maritima* (L.) Desv.	Isopoda	Philosciidae	*Australophiloscia* cf. *nichollsi*	Y	Y	Beating
-29.04	167.93	18/02/2014	Musaceae	*Musa* sp.	Isopoda	Philosciidae	*Australophiloscia* cf. *nichollsi*	Y	Y	Hand collection
-29.02	167.94	25/05/2014; 01/12/2014	NA	NA	Isopoda	Philosciidae	*Australophiloscia* cf. *nichollsi*	Y	Y	Trapping from leaf litter
-29.02	167.92	25/05/2014	Myrtaceae	*Eucalyptus* sp.	Isopoda	Philosciidae	*Australophiloscia* cf. *nichollsi*	Y	Y	Trapping from eucalypt leaf litter
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Isopoda	Philosciidae	*Australophiloscia nichollsi* Vandel, 1973	Y	Y	Berlese funnel from leaf litter under palms
-29.01	167.93	27/02/2014	NA	NA	Lepidoptera	Noctuidae	*Australothis rubrescens* (Walker, 1858)	N	Y	Light trap in eucalypt forest
-29.03	167.95	21/09/2013	NA	NA	Hemiptera	Cicadellidae	*Austroasca* Lower, 1952	Y	?	Hand collection from an outside light on building
-29.03	167.99	14/06/2013; 20/02/2014	Fabaceae	*Phaseolus vulgaris*	Hemiptera	Cicadellidae	*Austroasca* sp.	Y	?	Hand collection
-29.05	167.93	13/06/2013	Rutaceae	*Zanthoxylum pimnatum* (J.R.Forst. & G.Forst.) W.R.B.Oliv.	Hemiptera	Cicadellidae	*Austroasca* sp.	Y	?	Hand collection
-29.03	167.99	24/12/2012	Poaceae	*Zea mays*	Hemiptera	Cicadellidae	*Austroasca* sp.	Y	?	Yellow pan
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae		Hemiptera	Cicadellidae	*Austroasca viridigrisea* (Paoli, 1936)	Y	Y	Yellow pan among plants
-29.00	167.93	20/02/2014	Cucurbitaceae	*Cucumis melo* L.	Hemiptera	Cicadellidae	*Austroasca viridigrisea*	Y	Y	Sweep net
-29.00	167.93	20/02/2014	Cucurbitaceae	*Cucurbita pepo*	Hemiptera	Cicadellidae	*Austroasca viridigrisea*	Y	Y	Hand collection
-29.03	167.99	24/12/2012	Cucurbitaceae	*Cucurbita pepo*	Hemiptera	Cicadellidae	*Austroasca viridigrisea*	Y	Y	Yellow pan on bare soil beside curcubits
-29.02	167.99	21/02/2014	Fabaceae	*Glycine max*	Hemiptera	Cicadellidae	*Austroasca viridigrisea*	Y	Y	Hand collection
-29.03	167.94	18/02/2014	Convolvulaceae	*Ipomoea batatas* (L.) Lam.	Hemiptera	Cicadellidae	*Austroasca viridigrisea*	Y	Y	Hand collection
-29.00	167.93	12/06/2013	Convolvulaceae	*Ipomoea batatas*	Hemiptera	Cicadellidae	*Austroasca viridigrisea*	Y	Y	Sweep net
-29.00	167.93	20/02/2014	Asteraceae	*Lactuca sativa*	Hemiptera	Cicadellidae	*Austroasca viridigrisea*	Y	Y	Hand collection
-29.05	167.99	13/06/2013	Fabaceae	*Medicago sativa*	Hemiptera	Cicadellidae	*Austroasca viridigrisea*	Y	Y	Sweep net
-29.03	167.99	14/06/2013	Fabaceae	*Phaseolus vulgaris*	Hemiptera	Cicadellidae	*Austroasca viridigrisea*	Y	Y	Hand collection
-29.03	167.99	23/12/2012	Solanaceae	*Physalis* L.	Hemiptera	Cicadellidae	*Austroasca viridigrisea*	Y	Y	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.99	26/05/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Cicadellidae	*Austroasca viridigrisea*	Y	Y	Beating
-29.03	167.99	20/02/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Cicadellidae	*Austroasca viridigrisea*	Y	Y	Hand collection
-29.04	167.99	25/05/2014	Solanaceae	*Solanum tuberosum* L.	Hemiptera	Cicadellidae	*Austroasca viridigrisea*	Y	Y	Beating
-29.01	167.93	13/06/2013	Solanaceae	*Solanum tuberosum*	Hemiptera	Cicadellidae	*Austroasca viridigrisea*	Y	Y	Hand collection
-29.03	167.99	23/12/2012	Poaceae, Brassicaceae	*Zea mays*, *Brassica oleracea* var. *italica* Plenck	Hemiptera	Cicadellidae	*Austroasca viridigrisea*	Y	Y	Yellow pan among old corn and young broccoli
-29.00	167.93	23/12/2012; 27/02/2014; 26/12/2012	Various		Hemiptera	Cicadellidae	*Austroasca viridigrisea*	Y	Y	Yellow pan among various vegetable seedlings
-29.12	167.95	14/10/2014	Euphorbiaceae	*Balogbia inophylla* (G.Forst.) P.S.Green	Orthoptera	Tettigoniidae	*Austrosalomona personafrons* Rentz, 1988	N	N	Hand collection
-29.03	167.99	22 - 23/03/2014	Various		Diptera	Dolichopodidae	*Austrosciapus connexus* (Walker, 1835)	N	Y	Yellow pan
-29.00	167.93	24/10/2013	Various		Diptera	Dolichopodidae	*Austrosciapus connexus*	N	Y	Yellow pan
-29.00	167.93	23 - 24/03/2014; 23/12/2012; 27/02/2014; 26/12/2012	Various		Diptera	Dolichopodidae	*Austrosciapus connexus*	N	Y	Yellow pan among various vegetables
-29.03	167.99	24/12/2012	Cucurbitaceae	*Cucurbita pepo*	Diptera	Dolichopodidae	*Austrosciapus connexus*	N	Y	Yellow pan in bare soil beside cucurbits
-29.03	167.98	22/05/2014	Apiaceae	*Daucus carota*	Diptera	Dolichopodidae	*Austrosciapus connexus*	N	Y	Beating
-29.03	167.98	25/09/2013	Apiaceae	*Daucus carota*	Diptera	Dolichopodidae	*Austrosciapus connexus*	N	Y	Sweep net
-29.03	167.99	24/12/2012	Musaceae	*Musa* sp.	Diptera	Dolichopodidae	*Austrosciapus connexus*	N	Y	Yellow pan
-29.00	167.93	26/12/2012	Musaceae, Asteraceae	*Musa* sp., *Lactuca sativa*	Diptera	Dolichopodidae	*Austrosciapus connexus*	N	Y	Yellow pan
-29.03	167.92	22/05/2014	Lamiaceae	*Ocimum basilicum*	Diptera	Dolichopodidae	*Austrosciapus connexus*	N	Y	Beating
-29.00	167.93	26/12/2012	Lamiaceae, Brassicaceae, Musaceae	*Ocimum basilicum*, *Musa* sp.	Diptera	Dolichopodidae	*Austrosciapus connexus*	N	Y	Yellow pan near bananas
-29.04	167.99	8/10/2014	Fabaceae	*Phaseolus vulgaris*	Diptera	Dolichopodidae	*Austrosciapus connexus*	N	Y	Sweep net of beans among corn
-29.04	167.99	8/10/2014	Myrtaceae	*Psidium guajava* L.	Diptera	Dolichopodidae	*Austrosciapus connexus*	N	Y	Beating
-29.03	167.99	23/12/2012	Solanaceae	*Solanum lycopersicum*	Diptera	Dolichopodidae	*Austrosciapus connexus*	N	Y	Yellow pan

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.98	25/09/2013	Solanaceae	*Solanum melongena*	Diptera	Dolichopodidae	*Austrosciapus connexus*	N	Y	Beating
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Zea mays*, *Brassica oleracea* var. *italica*	Diptera	Dolichopodidae	*Austrosciapus connexus*	N	Y	Yellow pan
-29.03	167.99	23/12/2012	Poaceae, Brassicaceae	*Zea mays*, *Brassica oleracea* var. *italica*	Diptera	Dolichopodidae	*Austrosciapus connexus*	N	Y	Yellow pan among old corn and young broccoli
-29.03	167.99	23/10/2013	Various		Diptera	Dolichopodidae	*Austrosciapus connexus*	N	Y	Yellow pan
-29.03	167.96	11/10/2014	NA	NA	Coleoptera	Histeridae	*Bacanius* cf. *norfolcensis*	?	?	Light trap Set 11.10.14, collected 12.10.2014
-29.04	167.95	1/12/2014	Various		Hemiptera	Triozidae	*Bactericera cockerelli* ulc, 1909	Y	Y	Yellow pan among various vegetables
-29.04	167.96	25/11/2014	Convolvulaceae	*Ipomoea indica* (Burm.) Merr.	Hemiptera	Triozidae	*Bactericera cockerelli*	Y	Y	Hand collection
-29.06	167.94	11/10/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Triozidae	*Bactericera cockerelli*	Y	Y	Beating
-29.05	167.92	7/10/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Triozidae	*Bactericera cockerelli*	Y	Y	Beating
-29.05	167.92	7/10/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Triozidae	*Bactericera cockerelli*	Y	Y	Sweep net and beating
-29.04	167.98	9/10/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Triozidae	*Bactericera cockerelli*	Y	Y	Beating
-29.04	167.99	25/11/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Triozidae	*Bactericera cockerelli*	Y	Y	Hand collection
-29.04	167.99	8/10/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Triozidae	*Bactericera cockerelli*	Y	Y	Beating
-29.04	167.99	8/10/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Triozidae	*Bactericera cockerelli*	Y	Y	Beating
-29.03	167.93	28/11/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Triozidae	*Bactericera cockerelli*	Y	Y	Hand collection
-29.03	167.92	21/05/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Triozidae	*Bactericera cockerelli*	Y	Y	Beating
-29.00	167.93	25/11/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Triozidae	*Bactericera cockerelli*	Y	Y	Sweep net
-29.00	167.93	25/11/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Triozidae	*Bactericera cockerelli*	Y	Y	Sweep net
-29.04	167.99	25/05/2014	Solanaceae	*Solanum tuberosum*	Hemiptera	Triozidae	*Bactericera cockerelli*	Y	Y	Beating
-29.03	167.92	21/05/2014	Solanaceae	*Solanum tuberosum*	Hemiptera	Triozidae	*Bactericera cockerelli*	Y	Y	Beating
-29.04	167.96	27/02/2014	Various		Hemiptera	Triozidae	*Bactericera cockerelli*	Y	Y	Yellow pan among various young vegetables
-29.02	167.96	13/10/2014	Araucariaceae	*Araucaria heterophylla*	Araneae	Desidae	*Badumna longinqua* (L. Koch, 1867)	Y	Y	Hand collection from tree felled 10 months previously
-29.02	167.95	20/12/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Baenothrips moundi* (Stannard, 1970)	Y	Y	Hand collection from dead branches

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.95	26/12/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from dead wood and grass
-29.01	167.94	22/03/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from leaf litter
-29.03	167.99	22/03/2014	Poaceae	*Cenchrus purpureus*	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection
-29.02	167.94	22/12/2013	Asparagaceae	*Cordyline obtecta*	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from dead leaves
-29.02	167.95	12/07/2013	Asparagaceae	*Cordyline obtecta*	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from leaves
-29.01	167.94	23/12/2013; 30/11/2014; 22/12/2012	Asparagaceae	*Cordyline obtecta*	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from dead leaves
-29.02	167.95	24/12/2013	Celastraceae	*Elaeodendron curtipendulum* Endl.	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from lichens
-29.02	167.92	25/05/2014	Myrtaceae	*Eucalyptus* sp.	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Trapping from eucalypt leaf litter
-29.00	167.93	24/12/2012	Musaceae	*Musa* sp.	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from dead banana leaves
-29.02	167.95	22/11/2014	Musaceae	*Musa* sp.	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from dead leaves
-29.03	167.99	22/03/2014	Fagaceae	*Quercus* sp.	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from leaf litter
-29.01	167.94	23/12/2013	Arecaceae	*Rhopalostylis baueri* (Seem.) H.Wendl. & Drude	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from dead frond
-29.02	167.96	9/07/2013	Poaceae	*Saccharum officinarum*	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from dead sugar cane leaves
-29.02	167.95	21/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from dead branch
-29.01	167.94	30/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from dead branch
-29.02	167.95	23/11/2014	Arecaceae	Unknown	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from dead palm frond
-29.02	167.95	21/12/2012	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from dead twigs and leaves
-29.01	167.94	24/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from dead wood
-29.01	167.94	22/10/2013	Various	Unknown	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from dead wood and dead palm fronds
-29.01	167.92	26/11/2014	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection
-29.02	167.95	21/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection, berlesate from leaf litter

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.94	23/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection berlesate from leaf litter
-29.01	167.94	22/12/2012	Arecaceae	Unknown	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection from leaf litter
-29.01	167.95	21/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection berlesate
-29.02	167.95	21/12/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Baenothrips moundi*	Y	Y	Hand collection
-29.12	167.95	14/10/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiiformes	Erythraeidae	*Balaustium medicagoense* Meyer & Ryke, 1959	Y	Y	Beating
-29.03	167.94	10/10/2014	Poaceae	*Digitaria* sp.	Trombidiiformes	Erythraeidae	*Balaustium medicagoense*	Y	Y	Sweep net
-29.04	167.94	19/02/2014	Poaceae	Unknown	Trombidiiformes	Erythraeidae	*Balaustium medicagoense*	Y	Y	Sweep net from pasture grass
-29.01	167.92	21/05/2014	Poaceae	Unknown	Trombidiiformes	Erythraeidae	*Balaustium medicagoense*	Y	Y	Sweep net from cattle pasture
-29.13	167.95	14/10/2014	Amaranthaceae	*Achyranthes aspera*	Trombidiiformes	Erythraeidae	*Balaustium medicagoense*	Y	Y	Beating
-29.01	167.92	24/05/2014	NA	NA	Hemiptera	Cicadellidae	*Balclutha incisa* (Matsumura, 1902)	Y	Y	Culicoides trap Set 21.5.2014, collected 24.5.2014, cattle pasture
-29.05	167.92	19/05/2014	NA	NA	Hemiptera	Cicadellidae	*Balclutha lucida* (Butler, 1877)	Y	Y	Light trap
-29.05	167.93	24/05/2014	NA	NA	Hemiptera	Cicadellidae	*Balclutha lucida*	Y	Y	*Culicoides* trap Set 24.5.2014, collected 27.5.2014
-29.00	167.94	24/03/2014	Poaceae, Oleaceae	Unknown, *Olea europaea* subsp. *cuspidata*	Thysanoptera	Phlaeothripidae	*Bamboosiella cingulata* (Hood, 1919)	Y	Y	Hand collection from litter
-29.00	167.93	23/03/2014	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Phlaeothripidae	*Bamboosiella cingulata*	Y	Y	Hand collection from Leaf bases
-29.00	167.93	26/12/2012	Various, Apiaceae, Brassicaceae	*Apium graveolens* L.	Hemiptera	Cicadellidae	*Batracomorphus angustatus* (Osborn, 1934)	N	Y	Yellow pan near bananas
-29.03	167.98	25/09/2013	Apiaceae	*Daucus carota*	Hemiptera	Cicadellidae	*Batracomorphus angustatus*	N	Y	Sweep net
-29.03	167.99	21/02/2014	Fabaceae	*Glycine max*	Hemiptera	Cicadellidae	*Batracomorphus angustatus*	N	Y	Hand collection
-29.01	167.95	25/12/2012	Lomariopsidaceae	*Nephrolepis* Schott.	Hemiptera	Cicadellidae	*Batracomorphus angustatus*	N	Y	Yellow pan
-29.00	167.93	24/12/2012	Lamiaceae	*Ocimum basilicum*	Hemiptera	Cicadellidae	*Batracomorphus angustatus*	N	Y	Beating flowering plants
-29.00	167.93	26/12/2012	Lamiaceae, Brassicaceae, Musaceae	*Ocimum basilicum*, *Musa* sp.	Hemiptera	Cicadellidae	*Batracomorphus angustatus*	N	Y	Yellow pan
-29.02	167.97	22/12/2012	Polygonaceae	*Rumex brownii* Campd.	Hemiptera	Cicadellidae	*Batracomorphus angustatus*	N	Y	Sweep net in dead seed heads
-29.00	167.93	23/12/2012; 27/02/2014	Various		Hemiptera	Cicadellidae	*Batracomorphus angustatus*	N	Y	Yellow pan

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.94	28/02/2014	NA	NA	Orthoptera	Tettigoniidae	*Beiericolya tardipes* (Rentz, 1988)	N	N	Light trap
-29.03	167.97	27/11/2014	NA	NA	Coleoptera	Cerambycidae	*Bethelium diversicorne* (White, 1846)	Y	Y	Light trap
-29.05	167.93	23/11/2014	Commelinaceae	*Commelina cyanea* R.Br.	Thysanoptera	Thripidae	*Bhatithrips frontalis* (Bagnall, 1916)	Y	Y	Hand collection from leaves
-29.00	167.94	23/03/2014; 25/11/2014; 23/10/2013	Commelinaceae	*Commelina cyanea*	Thysanoptera	Thripidae	*Bhatithrips frontalis*	Y	Y	Hand collection from leaves
-29.01	167.94	30/11/2014	Asparagaceae	*Cordyline obtecta*	Thysanoptera	Thripidae	*Bhatithrips frontalis*	Y	Y	Hand collection from dead leaves
-29.00	167.94	24/10/2013	Phormiaceae	*Dianella* Lam.	Thysanoptera	Thripidae	*Bhatithrips frontalis*	Y	Y	Hand collection from dead leaves
-29.04	167.97	27/11/2014	Passifloraceae	*Passiflora* sp.	Thysanoptera	Thripidae	*Bhatithrips frontalis*	Y	Y	Hand collection from leaves
-29.00	167.94	11/07/2013	Unknown	Unknown	Thysanoptera	Thripidae	*Bhatithrips frontalis*	Y	Y	Hand collection
-29.01	167.94	24/11/2014	Unknown	Unknown	Thysanoptera	Thripidae	*Bhatithrips frontalis*	Y	Y	Hand collection from dead wood
-29.00	167.94	23/10/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Thripidae	*Bhatithrips frontalis*	Y	Y	Hand collection from dead leaves
-29.02	167.97	22/09/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Zopheridae	*Bitoma* Herbst, 1793	Y	?	Hand collection
-29.02	167.93	12/10/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Zopheridae	*Bitoma* sp.	Y	?	Hand collection from felled tree #8
-29.03	167.97	7/10/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Zopheridae	*Bitoma* sp.	Y	?	Hand collection
-29.02	167.93	25/02/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Zopheridae	*Bitoma* sp.	Y	?	Hand collection from under bark of billets
-29.01	167.93	26/02/2014	Myrtaceae	*Eucalyptus* sp.	Coleoptera	Zopheridae	*Bitoma* sp.	Y	?	Hand collection
-29.01	167.93	26/11/2014	Myrtaceae	*Eucalyptus* sp.	Coleoptera	Zopheridae	*Bitoma* sp.	Y	?	Hand collection from under timber
-29.03	167.97	27/11/2014	NA	NA	Coleoptera	Zopheridae	*Bitoma* sp.	Y	?	Light trap
-29.03	167.96	26/11/2014	Myrtaceae	*Eucalyptus botryoides* Sm.	Hemiptera	Psyllidae	*Blastopsylla occidentalis* Taylor, 1985	Y	Y	Hand collection
-29.00	167.93	24/10/2013	Various		Collembola	Bourletiellidae	*Bourletiella hortensis* (Fitch, 1863)	Y	Y	Yellow pa among various young vegetables
-29.00	167.93	23 - 24/03/2014	Various		Collembola	Bourletiellidae	*Bourletiella hortensis*	Y	Y	Yellow pan among various vegetables
-29.00	167.93	26/12/2012	Various, Apiaceae, Brassicaceae	*Apium graveolens*	Collembola	Bourletiellidae	*Bourletiella hortensis*	Y	Y	Yellow pan near bananas
-29.03	167.99	24/12/2012	Cucurbitaceae	*Cucurbita pepo*	Collembola	Bourletiellidae	*Bourletiella hortensis*	Y	Y	Yellow pan In bare soil beside curcubits
-29.01	167.94	24/12/2012	Pandanaceae	*Freycinetia banksia* A.Cunn.	Collembola	Bourletiellidae	*Bourletiella hortensis*	Y	Y	Beating dead leaves

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	24/12/2012	Musaceae	*Musa* sp.	Collembola	Bourletiellidae	*Bourletiella hortensis*	Y	Y	Yellow pan
-29.00	167.93	26/12/2012	Musaceae, Asteraceae	*Musa* sp., *Lactuca sativa*	Collembola	Bourletiellidae	*Bourletiella hortensis*	Y	Y	Yellow pan
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Collembola	Bourletiellidae	*Bourletiella hortensis*	Y	Y	Yellow pan among plants
-29.03	167.99	23/12/2012	Poaceae, Brassicaceae	*Zea mays*, *Brassica oleracea* var. *italica*	Collembola	Bourletiellidae	*Bourletiella hortensis*	Y	Y	Yellow pan
-29.03	167.99	23/10/2013	Various		Collembola	Bourletiellidae	*Bourletiella hortensis*	Y	Y	Yellow pan among various young vegetables
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Hemiptera	Aphididae	*Brachycaudus helichrysi* (Kaltenbach, 1843)	Y	Y	Yellow pan
-29.05	167.95	24/05/2014	NA	NA	Trombidiformes	Tydeidae	*Brachytydeus* Thor, 1931	Y	N	Culicoides trap Set 21.5.2014, collected 24.5.2014
-29.03	167.95	13/06/2013	Alliaceae	*Allium schoenoprasum* L.	Stylommatophora	Bradybaenidae	*Bradybaena similaris* (Férussac, 1821)	N?	Y	Hand collection
-29.03	167.93	26/09/2013	Cucurbitaceae	*Cucumis sativus*	Stylommatophora	Bradybaenidae	*Bradybaena similaris*	N?	Y	Hand collection (recent copper spray)
-29.04	167.94	23/09/2013	Arecaceae	*Howea belmoreana* (C.Moore & F.Muell.) Becc., *Howea forsteriana*	Stylommatophora	Bradybaenidae	*Bradybaena similaris*	N?	Y	Hand collection
-29.04	167.94	23/09/2013	NA	NA	Stylommatophora	Bradybaenidae	*Bradybaena similaris*	N?	Y	Hand collection
-29.04	167.99	25/09/2013	NA	NA	Stylommatophora	Bradybaenidae	*Bradybaena similaris*	N?	Y	Hand collection
-29.03	167.93	27/09/2013	NA	NA	Stylommatophora	Bradybaenidae	*Bradybaena similaris*	N?	Y	Hand collection
-29.02	167.97	22/09/2013	NA	NA	Stylommatophora	Bradybaenidae	*Bradybaena similaris*	N?	Y	Hand collection on rocks
-29.05	167.93	20/06/2013	Unknown	Unknown	Stylommatophora	Bradybaenidae	*Bradybaena similaris*	N?	Y	Hand collection
-29.03	167.95	18/02/2014	Asparagaceae	*Agave* L.	Stylommatophora	Bradybaenidae	*Bradybaena similaris*	N?	Y	Hand collection
-29.02	167.93	28/11/2014	NA	NA	Diptera	Sciaridae	*Bradysia impatiens* (Johannsen, 1912)	Y	Y	Trapping from native paint nursery
-29.04	167.97	1/12/2014	NA	NA	Diptera	Sciaridae	*Bradysia impatiens*	Y	Y	Hand collection and trapping from potting mix
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Hemiptera	Rhyparochromidae	*Brentiscerus australis* (Bergroth, 1916)	N	Y	Berlese funnel from leaf litter under palms
-29.04	167.98	27/11/2014	Caricaceae	*Carica papaya*	Trombidiformes	Tenuipalpidae	*Brevipalpus* Donnadieu, 1875	Y	?	Ethanol wash
-29.04	167.99	24/11/2014	Rutaceae	*Citrus ×limon*	Trombidiformes	Tenuipalpidae	*Brevipalpus* sp.	Y	?	Ethanol wash
-29.04	167.99	27/11/2014	Rutaceae	*Citrus reticulata*	Trombidiformes	Tenuipalpidae	*Brevipalpus* sp.	Y	?	Ethanol wash
-29.01	167.93	26/09/2013	Rutaceae	*Citrus* sp.	Trombidiformes	Tenuipalpidae	*Brevipalpus* sp.	Y	?	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.93	27/11/2014	Cucurbitaceae	*Cucumis sativus*	Trombidiformes	Tenuipalpidae	*Brevipalpus* sp.	Y	?	Ethanol wash
-29.03	167.93	27/11/2014	Anacardiaceae	*Mangifera indica*	Trombidiformes	Tenuipalpidae	*Brevipalpus* sp.	Y	?	Ethanol wash
-29.04	167.95	26/11/2014	Passifloraceae	*Passiflora edulis*	Trombidiformes	Tenuipalpidae	*Brevipalpus* sp.	Y	?	Ethanol wash
-29.04	167.99	27/11/2014	Rutaceae	*Citrus ×aurantiifolia*	Trombidiformes	Tenuipalpidae	*Brevipalpus* sp.	Y	?	Ethanol wash
-29.03	167.94	24/11/2014	Geraniaceae	*Pelargonium* L'Hér. ex Aiton	Trombidiformes	Tenuipalpidae	*Brevipalpus* sp.	Y	?	Ethanol wash
-29.04	167.99	27/11/2014	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Tenuipalpidae	*Brevipalpus phoenicis* (Geijskes, 1939) species-group	Y	?	Ethanol wash
-29.00	167.93	12/06/2013	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Tenuipalpidae	*Brevipalpus phoenicis* group	Y	?	Ethanol wash
-29.00	167.92	12/06/2013	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Tenuipalpidae	*Brevipalpus phoenicis* group	Y	?	Hand collection
-29.02	167.96	10/06/2013	Rutaceae	*Citrus* sp.	Trombidiformes	Tenuipalpidae	*Brevipalpus phoenicis group* sp. C	Y	?	Hand collection
-29.03	167.97	27/11/2014	NA	NA	Coleoptera	Chrysomelidae	*Brontispa norfolkensis* Gressitt, 1960	N	N	Light trap
-29.02	167.96	25/05/2014	Arecaceae	*Howea* sp.	Coleoptera	Chrysomelidae	*Brontispa norfolkensis*	N	N	Hand collection
-29.04	167.94	19/02/2014	Poaceae	Unknown	Trombidiformes	Tetranychidae	*Bryobia vasiljevi* Reck, 1953	Y	Y	Sweep net
-29.12	167.96	15/10/2014	Convolvulaceae	*Ipomoea cairica*	Hemiptera	Anthocoridae	*Buchananiella* Reuter, 1884	?	?	Beating
-29.04	167.92	22/05/2014	Passifloraceae	*Passiflora edulis* f. *flavicarpa*	Hemiptera	Anthocoridae	*Buchananiella* sp.	?	?	Beating
-29.03	167.92	22/05/2014	Fabaceae	*Phaseolus vulgaris*	Hemiptera	Anthocoridae	*Buchananiella* sp.	?	?	Beating
-29.03	167.99	23/05/2014	Euphorbiaceae	*Ricinus communis*	Hemiptera	Anthocoridae	*Buchananiella* sp.	?	?	Beating
-29.05	167.93	27/09/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Anthribidae	*Cacephatus* Blackburn, 1900	?	?	Hand collection from felled tree #2
Unknown	Unknown	11/10/2013	NA	NA	Coleoptera	Anthribidae	*Cacephatus* sp.	?	?	Culicoides trap 6
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Trombidiformes	Erythraeidae	*Caeculisoma* Berlese, 1888	Y	?	Berlese funnel from leaf litter under palms
-29.05	167.92	25/11/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Eriophyidae	*Calacarus* Keifer, 1940 sp. nov.?	Y	?	Ethanol wash
-29.00	167.93	24/11/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Eriophyidae	*Calacarus* sp. nov.?	Y	?	Ethanol wash
-29.02	167.94	3/12/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Eriophyidae	*Calacarus* sp.nov.?	Y	?	Hand collection
-29.04	167.99	23/05/2014	Rutaceae	*Citrus* sp.	Diptera	Calliphoridae	*Calliphora* Robineau-Desvoidy, 1830	?	?	Sweep net
-29.12	167.95	14/10/2014	Malvaceae	*Lagunaria patersonia*	Diptera	Calliphoridae	*Calliphora* sp.	?	?	Sweep net

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.05	167.9587	12/06/2014	NA	NA	Diptera	Calliphoridae	*Calliphora* sp.	?	?	LuciLure trap
-29.06	167.96	2/07/2014; 02/06/2014; 28/08/2014	NA	NA	Diptera	Calliphoridae	*Calliphora* sp.	?	?	LuciLure trap
-29.05	167.93	2/07/2014	NA	NA	Diptera	Calliphoridae	*Calliphora* sp.	?	?	LuciLure trap
-29.05	167.97	17/07/2014; 02/07/2014	NA	NA	Diptera	Calliphoridae	*Calliphora* sp.	?	?	Bezzilure trap
-29.04	167.93	24/06/2014	NA	NA	Diptera	Calliphoridae	*Calliphora* sp.	?	?	Bezzilure trap
-29.04	167.93	25/08/2014; 12/12/2014	NA	NA	Diptera	Calliphoridae	*Calliphora* sp.	?	?	Bezzilure trap
-29.04	167.94	25/08/2014	NA	NA	Diptera	Calliphoridae	*Calliphora* sp.	?	?	Bezzilure trap
-29.01	167.92	28/05/2014	NA	NA	Diptera	Calliphoridae	*Calliphora* sp.	?	?	LuciLure trap
-29.01	167.92	10/06/2014; 24/06/2014	NA	NA	Diptera	Calliphoridae	*Calliphora* sp.	?	?	LuciLure trap
-29.01	167.93	27/02/2014	NA	NA	Diptera	Calliphoridae	*Calliphora* sp.	?	?	Light trap in eucalypt forest
-29.03	167.96	23/02/2014	NA	NA	Diptera	Calliphoridae	*Calliphora* sp.	?	?	Light trap #4
-29.05	167.92	7/10/2014	Solanaceae	*Solanum lycopersicum*	Diptera	Calliphoridae	*Calliphora* sp.	?	?	Sweep net and beating
-29.03	167.97	7/10/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Calpurnius castaneus* (Lea, 1913)	N	Y	Hand collection
-29.03	167.95	25/02/2014	NA	NA	Coleoptera	Curculionidae	*Calpurnius castaneus*	N	Y	Hand collection
-29.03	167.97	18/02/2014	NA	NA	Coleoptera	Curculionidae	*Calpurnius castaneus*	N	Y	Hand collection from timber billets
-29.03	167.96	19/02/2014	NA	NA	Coleoptera	Curculionidae	*Calpurnius castaneus*	N	Y	Light trap #1
-29.03	167.97	21/05/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Calpurnius castaneus*	N	Y	Hand collection from milled Norfolk Island pine
-29.03	167.93	27/11/2014	Cucurbitaceae	*Cucumis sativus*	Sarcoptiformes		*Calvolia* Oudemans, 1911	Y	N	Ethanol wash
-29.03	167.99	23/05/2014	Euphorbiaceae	*Ricinus communis*	Sarcoptiformes		*Calvolia* sp.	Y	N	Beating
-29.03	167.93	27/11/2014	Solanaceae	*Solanum lycopersicum*	Sarcoptiformes		*Calvolia* sp.	Y	N	Ethanol wash
-29.12	167.95	14/10/2014	Malvaceae	*Lagunaria patersonia*	Coleoptera	Prinidae	*Calymmaderus* Solier, 1849	?	?	Hand collection
-29.05	167.93	13/06/2013	Fabaceae	*Medicago sativa*	Hemiptera	Miridae	*Campylomma* Reuter, 1878	?	?	Sweep net
-29.00	167.93	26/12/2012	Musaceae, Asteraceae	*Musa* sp., *Lactuca sativa*	Hemiptera	Miridae	*Campylomma* sp.	?	?	Yellow pan
-29.00	167.93	24/12/2012	Lamiaceae	*Ocimum basilicum*	Hemiptera	Miridae	*Campylomma* sp.	?	?	Beating flowering plants

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.93	26/12/2012	Lamiaceae, Brassicaceae, Musaceae	*Ocimum basilicum*, *Musa* sp.	Hemiptera	Miridae	*Campylomma* sp.	?	?	Yellow pan
-29.03	167.95	12/06/2013	Lamiaceae	*Rosmarinus officinalis* L.	Hemiptera	Miridae	*Campylomma* sp.	?	?	Beating
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Hemiptera	Miridae	*Campylomma* sp.	?	?	Yellow pan among plants
-29.03	167.96	26/11/2014	Myrtaceae	*Eucalyptus botryoides*	Hemiptera	Psylidae	*Cardiaspina fiscella* Taylor, 1962	Y	Y	Hand collection
-29.02	167.95	26/02/2014	Myrtaceae	*Eucalyptus botryoides*	Hemiptera	Psylidae	*Cardiaspina fiscella*	Y	Y	Hand collection
-29.01	167.93	26/02/2014	Myrtaceae	*Eucalyptus* sp.	Hemiptera	Psyllidae	*Cardiaspina fiscella*	Y	Y	Hand collection
-29.03	167.95	19/05/2014	Myrtaceae	*Eucalyptus botryoides*	Hemiptera	Psylidae	*Cardiaspina fiscella*	Y	Y	Sweep net
-29.05	167.92	24/05/2014	Poaceae	Unknown	Hymenoptera	Formicidae	*Cardiocondyla* cf. *nuda*	N	Y	Sweep net
-29.03	167.99	22 - 23/03/2014	Various		Hymenoptera	Formicidae	*Cardiocondyla emeryi*	N	N	Yellow pan among various vegetables
-29.05	167.94	22/09/2013	Brassicaceae, Solanaceae	*Brassica oleracea* var. *capitata* L.	Hymenoptera	Formicidae	*Cardiocondyla emeryi*	N	N	Hand collection
-29.03	167.99	25/09/2013	Brassicaceae	*Brassica oleracea* var. *italica*	Hymenoptera	Formicidae	*Cardiocondyla emeryi* Forel, 1881	N	N	Hand collection
-29.03	167.93	19/02/2014	Brassicaceae	*Brassica oleracea* var. *italica*	Hymenoptera	Formicidae	*Cardiocondyla emeryi*	N	N	Hand collection
-29.04	167.93	18/02/2014	Caricaceae	*Carica papaya*	Hymenoptera	Formicidae	*Cardiocondyla emeryi*	N	N	Hand collection
-29.03	167.98	21/05/2014	Poaceae	*Cenchrus purpureus*	Hymenoptera	Formicidae	*Cardiocondyla emeryi*	N	N	Sweep net
-29.05	167.97	24/02/2014	Asteraceae	*Conyza* Less.	Hymenoptera	Formicidae	*Cardiocondyla emeryi*	N	N	Hand collection
-29.03	167.92	21/05/2014	Asparagaceae	*Cordyline* sp.	Hymenoptera	Formicidae	*Cardiocondyla emeryi*	N	N	Beating
-29.04	167.99	22/05/2014	Malvaceae	*Hibiscus* L.	Hymenoptera	Formicidae	*Cardiocondyla emeryi*	N	N	Beating
-29.04	167.94	23/09/2013	NA	NA	Hymenoptera	Formicidae	*Cardiocondyla emeryi*	N	N	Hand collection from soil
-29.02	167.97	22/09/2013	NA	NA	Hymenoptera	Formicidae	*Cardiocondyla emeryi*	N	N	Hand collection from garden
-29.00	167.93	20/02/2014	Lauraceae	*Persea americana* Mill.	Hymenoptera	Formicidae	*Cardiocondyla emeryi*	N	N	Hand collection
-29.03	167.99	20/02/2014	Fabaceae	*Phaseolus* sp.	Hymenoptera	Formicidae	*Cardiocondyla emeryi*	N	N	Hand collection
-29.03	167.93	19/02/2014	Solanaceae	*Solanum lycopersicum*	Hymenoptera	Formicidae	*Cardiocondyla emeryi*	N	N	Beating
-29.01	167.93	13/06/2013	Solanaceae	*Solanum tuberosum*	Hymenoptera	Formicidae	*Cardiocondyla emeryi*	N	N	Hand collection
-29.04	167.99	23 - 24/03/2014	Various		Hymenoptera	Formicidae	*Cardiocondyla emeryi*	N	N	Yellow pan among various vegetables

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	22 - 23/03/2014	Various		Hymenoptera	Formicidae	*Cardiocondyla nuda* (Mayr, 1866)	N	Y	Yellow pan among various vegetables
-29.02	167.96	26/03/2014	Various		Hymenoptera	Formicidae	*Cardiocondyla nuda*	N	Y	Yellow pan
-29.05	167.97	24/02/2014	Rutaceae	*Citrus* sp.	Hymenoptera	Formicidae	*Cardiocondyla nuda*	N	Y	Hand collection
-29.03	167.94	18/02/2014	Convolvulaceae	*Ipomoea batatas*	Hymenoptera	Formicidae	*Cardiocondyla nuda*	N	Y	Hand collection
-29.00	167.93	20/02/2014	Convolvulaceae	*Ipomoea batatas*	Hymenoptera	Formicidae	*Cardiocondyla nuda*	N	Y	Hand collection
-29.05	167.97	21/02/2014	Verbenaceae	*Lantana camara*	Hymenoptera	Formicidae	*Cardiocondyla nuda*	N	Y	Beating
-29.02	167.96	26/09/2013	NA	NA	Hymenoptera	Formicidae	*Cardiocondyla nuda*	N	Y	Hand collection from soil
-29.04	167.99	23 - 24/03/2014	Various		Hymenoptera	Formicidae	*Cardiocondyla nuda*	N	Y	Yellow pan among various vegetables
-29.04	167.94	21/12/2012	Malvaceae	*Hibiscus* sp.	Thysanoptera	Phlaeothripidae	*Carientothrips flavitibia* Hood, 1968	Y	Y	Hand collection
-29.01	167.94	11/07/2013	Asparagaceae	*Cordyline obtecta*	Thysanoptera	Phlaeothripidae	*Carientothrips snowi* Eow, Mound, Tree & Cameron, 2014	Y	N	Hand collection from dead leaves
-29.01	167.94	23/12/2013	Arecaceae	*Rhopalostylis baueri*	Thysanoptera	Phlaeothripidae	*Carientothrips snowi*	Y	N	Hand collection from dead frond
-29.02	167.96	27/12/2012; 24/11/2014;	Arecaceae	*Rhopalostylis baueri*	Thysanoptera	Phlaeothripidae	*Carientothrips snowi*	Y	N	Hand collection from dead fronds
-29.03	167.94	12/07/2013	Arecaceae	Unknown	Thysanoptera	Phlaeothripidae	*Carientothrips snowi*	Y	N	Hand collection
-29.01	167.94	24/11/2014; 27/12/2012	Arecaceae	Unknown	Thysanoptera	Phlaeothripidae	*Carientothrips snowi*	Y	N	Hand collection
-29.01	167.94	30/11/2014; 22/12/2012	Arecaceae	Unknown	Thysanoptera	Phlaeothripidae	*Carientothrips snowi*	Y	N	Hand collection
-29.01	167.94	24/10/2013	Arecaceae, Scrophulariaceae	Unknown, *Myoporum* Banks & Sol. ex G.Forst.	Thysanoptera	Phlaeothripidae	*Carientothrips snowi*	Y	N	Hand collection from dead frond
-29.01	167.94	24/12/2013	Euphorbiaceae, Oleaceae	*Baloghia inophylla*, *Jasminum* L.	Thysanoptera	Phlaeothripidae	*Carientothrips snowi*	Y	N	Hand collection
-29.1	167.96	15/10/2014	Convolvulaceae	*Ipomoea cairica*	Coleoptera	Nitidulidae	*Carpophilus* Stephens, 1830	Y	?	Beating
-29.03	167.98	21/05/2014	Brassicaceae	*Brassica oleracea* var. *italica*	Coleoptera	Nitidulidae	*Carpophilus dimidiatus* (Fabricius, 1792)	Y	Y	Beating
-29.00	167.93	24/09/2013	Caricaceae	*Carica papaya*	Coleoptera	Nitidulidae	*Carpophilus dimidiatus*	Y	Y	Hand collection from rotting fruit on ground
-29.01	167.93	26/09/2013	Rutaceae	*Citrus* ×*aurantium*	Coleoptera	Nitidulidae	*Carpophilus dimidiatus*	Y	Y	Hand collection from rotting fruit. *Drosophila* observed
-29.00	167.94	24/02/2014	Malvaceae	*Lagunaria patersonia*	Coleoptera	Nitidulidae	*Carpophilus dimidiatus*	Y	Y	Beating
-29.00	167.93	26/12/2012	Musaceae, Asteraceae	*Musa* sp., *Lactuca sativa*	Coleoptera	Nitidulidae	*Carpophilus dimidiatus*	Y	Y	Yellow pan

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Nitidulidae	*Carpophilus dimidiatus*	Y	Y	Light trap #3
-29.04	167.96	27/02/2014	Various		Coleoptera	Nitidulidae	*Carpophilus dimidiatus*	Y	Y	Yellow pan among various young vegetables
-29.01	167.93	13/06/2013	Rutaceae	*Citrus sinensis*	Coleoptera	Nitidulidae	*Carpophilus maculatus* Murray, 1864	Y	Y	Hand collection from fallen fruit
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Latrididae	*Cartodere* C.G. Thomson, 1859	Y	?	Light trap #3
-29.03	167.94	24/05/2014	Arecaceae	*Rhopalostylis baueri*	Coleoptera	Latrididae	*Cartodere constricta* (Gyllenhal, 1827)	Y	Y	Hand collection
-29.03	167.99	25/09/2013	Brassicaceae	*Brassica oleracea* var. *italica*	Hymenoptera	Ceraphronidae	*Ceraphron* Jurine, 1807	Y	?	Hand collection
Unknown	Unknown	2/10/2013	NA	NA	Coleoptera	Cerambycidae	*Ceresium flavipes* (Fabricius, 1792)	N	Y	*Calicoides* trap, Site 8, *Calicoides* trap #7
-29.06	167.92	1/12/2014	Solanaceae	*Lycium ferocissimum* Miers	Coleoptera	Cerambycidae	*Ceresium flavipes*	N	Y	Yellow pan
-29.03	167.99	23/12/2012	Poaceae, Brassicaceae	*Zea mays*, *Brassica oleracea* var. *italica*	Diptera	Agromyzidae	*Cerodontha australis* Malloch, 1925	N	Y	Yellow pan
-29.03	167.99	21/02/2014	Poaceae	*Triticum* L.	Diptera	Agromyzidae	*Cerodontha australis*	N	Y	Hand collection
-29.03	167.99	21/02/2014	Myrtaceae	*Acca sellowiana* (O.Berg) Burret	Hemiptera	Coccidae	*Ceroplastes* Gray, 1828	?	?	Hand collection
-29.03	167.98	14/06/2013	Rubiaceae	*Coffea* sp.	Hemiptera	Coccidae	*Ceroplastes* sp.	?	?	Observation
-29.05	167.93	17/02/2014	Verbenaceae	*Duranta erecta* L.	Hemiptera	Coccidae	*Ceroplastes* sp.	?	?	Hand collection
-29.04	167.99	14/06/2013	Rosaceae	*Prunus dulcis* (Mill.) D.A.Webb	Hemiptera	Coccidae	*Ceroplastes* sp.	?	?	Observation
-29.02	167.96	10/06/2013	Rutaceae	*Citrus* sp.	Hemiptera	Coccidae	*Ceroplastes destructor* Newstead, 1917	N	Y	Hand collection
-29.01	167.95	23/09/2013	Apocynaceae	*Melodinus baueri* Endl.	Hemiptera	Coccidae	*Ceroplastes destructor*	N	Y	Hand collection
-29.01	167.95	23/09/2013	Araliaceae	*Meryta angustifolia*	Hemiptera	Coccidae	*Ceroplastes destructor*	N	Y	Hand collection
-29.01	167.95	23/09/2013	Pittosporaceae	*Pittosporum bracteolatum* Endl.	Hemiptera	Coccidae	*Ceroplastes destructor*	N	Y	Sweep net
-29.02	167.96	10/06/2013	Pittosporaceae	*Pittosporum* sp.	Hemiptera	Coccidae	*Ceroplastes destructor*	N	Y	Hand collection
-29.01	167.95	23/09/2013	Apocynaceae	*Alyxia gynopogon* Roem. & Schult.	Hemiptera	Coccidae	*Ceroplastes destructor*	N	Y	Hand collection
-29.04	167.99	14/06/2013	Rutaceae	*Citrus* ×*aurantium*	Hemiptera	Coccidae	*Ceroplastes rubens* Maskell, 1893	N	Y	Hand collection
-29.00	167.93	24/09/2013	Rutaceae	*Citrus* ×*aurantium*	Hemiptera	Coccidae	*Ceroplastes rubens*	N	Y	Hand collection
-29.05	167.93	23/05/2014	Rubiaceae	*Coffea* sp.	Hemiptera	Coccidae	*Ceroplastes rubens*	N	Y	Hand collection
-29.01	167.93	13/06/2013	Lauraceae	*Persea americana*	Hemiptera	Coccidae	*Ceroplastes rubens*	N	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.93	18/02/2014	Rutaceae	*Citrus ×aurantium*	Hemiptera	Coccidae	*Ceroplastes sinensis* Del Guercio, 1900	N	Y	Hand collection
-29.03	167.94	10/10/2014	Rutaceae	*Citrus* sp.	Hemiptera	Coccidae	*Ceroplastes sinensis*	N	Y	Hand collection
-29.01	167.93	26/09/2013	Rutaceae	*Citrus* sp.	Hemiptera	Coccidae	*Ceroplastes sinensis*	N	Y	Hand collection
-29.02	167.97	22/09/2013	Malvaceae	*Leguinaria patersonia*	Hemiptera	Coccidae	*Ceroplastes sinensis*	N	Y	Hand collection
-29.123	167.95	14/10/2014	Malvaceae	*Leguinaria patersonia*	Hemiptera	Coccidae	*Ceroplastes sinensis*	N	Y	Hand collection
-29.04	167.99	25/09/2013	Malvaceae	*Leguinaria patersonia*	Hemiptera	Coccidae	*Ceroplastes sinensis*	N	Y	Hand collection
-29.01	167.93	13/06/2013	Rosaceae	*Malus pumila*	Hemiptera	Coccidae	*Ceroplastes sinensis*	N	Y	Hand collection
-29.03	167.93	26/09/2013	Anacardiaceae	*Mangifera indica*	Hemiptera	Coccidae	*Ceroplastes sinensis*	N	Y	Hand collection
-29.01	167.95	23/09/2013	Primulaceae	*Myrsine ralstoniae* (P.S.Green) Jackes	Hemiptera	Coccidae	*Ceroplastes sinensis*	N	Y	Observation
-29.04	167.99	8/10/2014	Lythraceae	*Punica granatum* L.	Hemiptera	Coccidae	*Ceroplastes sinensis*	N	Y	Hand collection and beating
-29.02	167.96	10/06/2013	Lythraceae	*Punica granatum*	Hemiptera	Coccidae	*Ceroplastes sinensis*	N	Y	Hand collection
-29.04	167.99	14/06/2013	Vitaceae	*Vitis vinifera*	Hemiptera	Coccidae	*Ceroplastes sinensis*	N	Y	Hand collection
-29.03	167.95	11/06/2013	Vitaceae	*Vitis vinifera*	Hemiptera	Coccidae	*Ceroplastes sinensis*	N	Y	Hand collection
-29.04	167.99	14/06/2013	Rutaceae	*Casimiroa edulis*	Hemiptera	Coccidae	*Ceroplastes sinensis*	N	Y	Hand collection
-29.04	167.99	24/03/2014	Rutaceae, Poaceae	*Citrus* sp.	Thysanoptera	Thripidae	*Chaetanaphothrips orchidii* (Moulton, 1907)	Y	Y	Hand collection from young citrus leaves and grass
-29.05	167.93	25/03/2014; 23/11/2014; 26/02/2014	Commelinaceae	*Commelina cyanea*	Thysanoptera	Thripidae	*Chaetanaphothrips orchidii*	Y	Y	Hand collection from leaves
-29.03	167.95	26/09/2013	Passifloraceae	*Passiflora edulis*	Thysanoptera	Thripidae	*Chaetanaphothrips orchidii*	Y	Y	Hand collection
-29.04	167.99	24/12/2013	Apiaceae	*Petroselinum crispum*	Thysanoptera	Thripidae	*Chaetanaphothrips orchidii*	Y	Y	Hand collection
-29.05	167.92	23/05/2014	Solanaceae	*Solanum lycopersicum*	Thysanoptera	Thripidae	*Chaetanaphothrips orchidii*	Y	Y	Trapping
-29.02	167.93	25/05/2014	Fabaceae	*Trifolium* sp.	Thysanoptera	Thripidae	*Chaetanaphothrips orchidii*	Y	Y	Beating
-29.05	167.93	26/03/2014	Unknown	Unknown	Thysanoptera	Thripidae	*Chaetanaphothrips orchidii*	Y	Y	Hand collection
-29.00	167.93	24/09/2013	Rutaceae	*Citrus ×aurantium*	Thysanoptera	Thripidae	*Chaetanaphothrips orchidii*	Y	Y	Hand collection
-29.03	167.93	19/02/2014	Brassicaceae	*Brassica oleracea* var. *italica*	Coleoptera	Chrysomelidae	*Chaetocnema paspalae* (Broun, 1923)	N	N	Hand collection
-29.01	167.94	11/06/2013	Meliaceae	*Dysoxylum bijugum*	Coleoptera	Chrysomelidae	*Chaetocnema paspalae*	N	N	Hand collection
-29.03	167.94	18/02/2014	Convolvulaceae	*Ipomoea batatas*	Coleoptera	Chrysomelidae	*Chaetocnema paspalae*	N	N	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	14/06/2013; 23/12/2012	Convolvulaceae	*Ipomoea batatas*	Coleoptera	Chrysomelidae	*Chaetocnema paspalae*	N	N	Sweep net
-29.00	167.93	20/02/2014; 12/06/2013	Convolvulaceae	*Ipomoea batatas*	Coleoptera	Chrysomelidae	*Chaetocnema paspalae*	N	N	Hand collection
-29.00	167.93	26/12/2012	Lamiaceae, Brassicaceae, Musaceae	*Ocimum basilicum*, *Musa* sp.	Coleoptera	Chrysomelidae	*Chaetocnema paspalae*	N	N	Yellow pan
-29.03	167.99	14/06/2013	Fabaceae	*Phaseolus vulgaris*	Coleoptera	Chrysomelidae	*Chaetocnema paspalae*	N	N	Hand collection
-29.02	167.97	22/09/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Chrysomelidae	*Chaetocnema paspalae*	N	N	Hand collection
-29.04	167.97	26/05/2014	Rosaceae	*Fragaria ×ananassa* (Weston) Duchesne ex Rozier	Hemiptera	Aphididae	*Chaetosiphon fragaefolii* (Cockerell, 1901)	Y	Y	Hand collection
-29.00	167.93	24/09/2013	Arecaceae	*Howea belmoreana*, *Howea forsteriana*	Trombidiformes	Cheyletidae	*Cheletogenes waitei* Gerson, 1994	Y	Y	Hand collection
-29.06	167.94	26/11/2014	NA	NA	Coleoptera	Carabidae	*Chlaenius flavigultatus* W.S. Macleay, 1825	N	Y	Light trap
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Stylommatophora	Punctidae	*Christinaconcha orestias* (Preston, 1913)	N	N	Berlese funnel from leaf litter under palms
-29.00	167.93	22/02/2014	NA	NA	Lepidoptera	Noctuidae	*Chrysodeixis* Hübner, 1821	?	?	Bucket light trap in orchard
-29.04	167.97	9/10/2014	Solanaceae	*Solanum lycopersicum*	Lepidoptera	Noctuidae	*Chrysodeixis argentifera* (Guenée, 1852)	N	Y	Beating
-29.03	167.98	22/05/2014	Apiaceae	*Daucus carota*	Lepidoptera	Noctuidae	*Chrysodeixis eriosoma* (Doubleday, 1843)			Beating - larvae
-29.03	167.98	22/05/2014	Convolvulaceae	*Ipomoea batatas*	Lepidoptera	Noctuidae	*Chrysodeixis eriosoma*	N	Y	Beating
-29.00	167.93	20/02/2014	Convolvulaceae	*Ipomoea batatas*	Lepidoptera	Noctuidae	*Chrysodeixis eriosoma*	N	Y	Hand collection
-29.03	167.92	21/05/2014	Anacardiaceae	*Mangifera indica*	Lepidoptera	Noctuidae	*Chrysodeixis eriosoma*	N	Y	Hand collection
-29.04	167.99	8/10/2014	Solanaceae	*Solanum lycopersicum*	Lepidoptera	Noctuidae	*Chrysodeixis eriosoma*	N	Y	Beating
-29.04	167.99	8/10/2014	Solanaceae	*Solanum lycopersicum*	Lepidoptera	Noctuidae	*Chrysodeixis eriosoma*	N	Y	Beating
-29.03	167.98	21/05/2014	Solanaceae	*Solanum lycopersicum*	Lepidoptera	Noctuidae	*Chrysodeixis eriosoma*	N	Y	Beating
-29.01	167.92	16/10/2014	Solanaceae	*Solanum lycopersicum*	Lepidoptera	Noctuidae	*Chrysodeixis eriosoma*	N	Y	Hand collection
-29.04	167.99	25/05/2014	Solanaceae	*Solanum tuberosum*	Lepidoptera	Noctuidae	*Chrysodeixis eriosoma*	N	Y	Beating
-29.00	167.93	24/09/2013	Cucurbitaceae	*Cucumis sativus*	Lepidoptera	Noctuidae	*Chrysodeixis eriosoma*	N	Y	Hand collection
-29.02	167.93	27/09/2013	Oleaceae	*Nestegis apetala* (Vahl) L.A.S.Johnson	Hemiptera	Diaspididae	*Chrysomphalus diciyospermi* (Morgan, 1889)	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.99	25/09/2013	Musaceae	*Musa* sp.	Hemiptera	Diaspididae	*Chrysomphalus dictyospermi*	Y	Y	Hand collection
-29.03	167.93	26/09/2013	Rutaceae	*Citrus ×aurantium*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer* (Maskell, 1891)	N	Y	Hand collection
-29.04	167.99	14/06/2013	Rutaceae	*Citrus ×aurantium*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.00	167.92	20/02/2014	Rutaceae	*Citrus ×aurantium*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.00	167.93	24/09/2013	Rutaceae	*Citrus ×aurantium*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.00	167.93	24/09/2013	Rutaceae	*Citrus ×aurantium*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.01	167.95	23/09/2013	Rutaceae	*Citrus ×limon*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.05	167.93	27/09/2013	Rutaceae	*Citrus* sp.	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.02	167.96	10/06/2013	Rutaceae	*Citrus* sp.	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.01	167.94	11/06/2013	Rutaceae	*Citrus* sp.	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.01	167.93	26/09/2013	Arecaceae	*Howea belmoreana*, *Howea forsteriana*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.00	167.93	24/09/2013	Arecaceae	*Howea belmoreana*, *Howea forsteriana*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.03	167.96	19/02/2014	Lauraceae	*Laurus nobilis* L.	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.00	167.93	24/09/2013	Anacardiaceae	*Mangifera indica*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.04	167.94	23/09/2013	Araliaceae	*Meryta angustifolia*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.02	167.96	10/06/2013	Araliaceae	*Meryta angustifolia*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.04	167.94	23/09/2013	Musaceae	*Musa* sp.	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.03	167.93	26/09/2013	Musaceae	*Musa* sp.	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.02	167.96	10/06/2013	Musaceae	*Musa* sp.	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.02	167.93	27/09/2013	Oleaceae	*Nestegis apetala*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.01	167.93	26/02/2014	Oleaceae	*Olea europaea* subsp. *cuspidata*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.02	167.95	24/09/2013	Myrtaceae	*Psidium cattleyanum* var. *cattleyanum*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.02	167.96	10/06/2013	Arecaceae	*Rhopalostylis baueri*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.01	167.94	11/06/2013	Arecaceae	*Rhopalostylis baueri*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.02	167.93	27/09/2013	Arecaceae	*Rhopalostylis baueri*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.94	23/09/2013	Anacardiaceae	*Schinus terebinthifolius*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.03	167.96	19/02/2014	Bromeliaceae	Unknown	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.01	167.95	24/09/2013	Euphorbiaceae	*Baloghia inophylla*	Hemiptera	Diaspididae	*Chrysomphalus pinnulifer*	N	Y	Hand collection
-29.04	167.99	23/05/2014	Rutaceae	*Citrus* sp.	Diptera	Calliphoridae	*Chrysomya megacephala* (Fabricius, 1794)	Y	Y	Sweep net
-29.04	167.98	9/10/2014	Anacardiaceae	*Mangifera indica*	Diptera	Calliphoridae	*Chrysomya megacephala*	Y	Y	Sweep net and beating
-29.06	167.97	12/12/2014	NA	NA	Diptera	Calliphoridae	*Chrysomya megacephala*	Y	Y	Bezzilure trap
-29.05	167.98	10/10/2014	NA	NA	Diptera	Calliphoridae	*Chrysomya megacephala*	Y	Y	Light trap
-29.05	167.98	12/06/2014; 24/08/2014; 10/10/2014	NA	NA	Diptera	Calliphoridae	*Chrysomya megacephala*	Y	Y	Bezzilure trap
-29.05	167.96	28/05/2014	NA	NA	Diptera	Calliphoridae	*Chrysomya megacephala*	Y	Y	LuciLure trap
-29.05	167.97	24/06/2014; 17/07/2014; 01/10/2014; 25/10/2014	NA	NA	Diptera	Calliphoridae	*Chrysomya megacephala*	Y	Y	Bezzilure trap
-29.04	167.94	12/12/2014	NA	NA	Diptera	Calliphoridae	*Chrysomya megacephala*	Y	Y	Bezzilure trap
-29.03	167.98	12/12/2014; 29/05/2014; 12/06/2014' 25/08/2014	NA	NA	Diptera	Calliphoridae	*Chrysomya megacephala*	Y	Y	LuciLure trap
-29.05	167.98	12/12/2014	NA	NA	Diptera	Calliphoridae	*Chrysomya megacephala*	Y	Y	Bezzilure trap over 5000 flies in trap
-29.04	167.99	8/10/2014	NA	Unknown	Diptera	Calliphoridae	*Chrysomya megacephala*	Y	Y	Sweep net through grass and weeds in orchard
-29.04	167.99	8/10/2014	Rutaceae	*Citrus ×aurantiifolia*	Diptera	Calliphoridae	*Chrysomya megacephala*	N	Y	Hand collection and sweep net
-29.00	167.93	22/02/2014	NA	NA	Diptera	Calliphoridae	*Chrysomya rufifacies* (Macquart, 1843)	Y	Y	Bucket light trap in orchard
-29.04	167.99	8/10/2014	Myrtaceae	*Psidium guajava*	Diptera	Calliphoridae	*Chrysomya saffranea* (Bigot, 1877)	Y	Y	Beating
-29.06	167.96	28/08/2014	NA	NA	Diptera	Calliphoridae	*Chrysomya varipes* (Macquart, 1851)	N	Y	LuciLure trap
-29.05	167.98	10/10/2014	NA	NA	Diptera	Calliphoridae	*Chrysomya varipes*	N	Y	Bezzilure trap
-29.05	167.98	12/12/2014	NA	NA	Diptera	Calliphoridae	*Chrysomya varipes*	N	Y	Bezzilure trap
-29.04	167.97	25/10/2014	NA	NA	Diptera	Calliphoridae	*Chrysomya varipes*	N	Y	Bezzilure trap
-29.03	167.94	12/12/2014	NA	NA	Diptera	Calliphoridae	*Chrysomya varipes*	N	Y	Bezzilure trap

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.98	17/07/2014; 25/08/2014'; 12/12/2014; 02/06/2014	NA	NA	Diptera	Calliphoridae	*Chrysomya varipes*	N	Y	LuciLure trap
-29.01	167.92	12/12/2014	NA	NA	Diptera	Calliphoridae	*Chrysomya varipes*	N	Y	LuciLure trap
-29.06	167.97	24/06/2014; 12/12/2014	NA	NA	Diptera	Calliphoridae	*Chrysomya varipes*	N	Y	Bezzilure trap
-29.00	167.93	23/12/2012	Various		Hemiptera	Cicadellidae	*Cicadulina bimaculata* (Evans, 1940)	Y	Y	Yellow pan
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Clambidae	*Clambus* Fischer von Waldheim, 1820	Y	?	Light trap #3
-29.03	167.92	21/05/2014	Apiaceae	*Daucus carota*	Lepidoptera	Geometridae	*Cleora* Curtis, 1825	?	?	Beating
-29.05	167.95	20/02/2014	NA	NA	Coleoptera	Carabidae	*Clivina basalis* Chaudoir, 1843	N	Y	Light trap #2
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Araneae	Clubionidae	*Clubiona comta* C.L. Koch, 1839	Y	N	Berlese funnel from leaf litter under palms
-29.03	167.97	7/10/2014	NA	NA	Araneae	Clubionidae	*Clubiona* Latreille, 1804	Y	?	Light trap Set 6.10.14, collected 7.10.14
-29.03	167.98	22/05/2014	Apiaceae	*Daucus carota*	Coleoptera	Coccinellidae	*Coccinella septempunctata* (Linnaeus, 1758)	Y	N	Beating
-29.03	167.99	22 - 23/03/2014	Various		Coleoptera	Coccinellidae	*Coccinella transversalis* Fabricius, 1781	Y	Y	Yellow pan
-29.12	167.96	15/10/2014	Solanaceae	*Solanum nodiflorum*	Coleoptera	Coccinellidae	*Coccinella transversalis*	Y	Y	Beating
-29.05	167.93	13/06/2013	Fabaceae	*Medicago sativa*	Coleoptera	Coccinellidae	*Coccinella transversalis*	Y	Y	Hand collection
-29.02	167.97	22/09/2013	Fabaceae	*Trifolium repens* var. *repens*	Coleoptera	Coccinellidae	*Coccinella undecimpunctata* Linnaeus, 1758	Y	Y	Hand collection
-29.03	167.95	11/06/2013	Apocynaceae	*Plumeria rubra* L.	Hemiptera	Coccidae	*Coccus hesperidum* Linnaeus, 1758	N	Y	Hand collection
-29.03	167.95	11/06/2013	Vitaceae	*Vitis vinifera*	Hemiptera	Coccidae	*Coccus hesperidum*	N	Y	Hand collection
-29.05	167.98	24/02/2014	Asparagaceae	*Yucca aloifolia* L.	Hemiptera	Coccidae	*Coccus hesperidum*	N	Y	Beating
-29.05	167.93	19/05/2014	Moraceae	*Ficus* L.	Hemiptera	Coccidae	*Coccus hesperidum*	N	Y	Light trap
-29.05	167.93	19/05/2014	Moraceae	*Ficus* sp.	Hemiptera	Coccidae	*Coccus longulus* (Douglas, 1887)	Y	Y	Light trap
-29.01	167.95	25/02/2014	Malvaceae	*Lagunaria patersonia*	Hemiptera	Coccidae	*Coccus longulus*	Y	Y	Hand collection
-29.12	167.95	14/10/2014	Malvaceae	*Lagunaria patersonia*	Hemiptera	Coccidae	*Coccus longulus*	Y	Y	Hand collection and beating
-29.05	167.96	27/09/2013	Rutaceae	*Citrus* sp.	Hemiptera	Coccidae	*Coccus longulus*	Y	Y	Hand collection
-29.04	167.99	14/06/2013	Rutaceae	*Citrus* ×*aurantium*	Hemiptera	Coccidae	*Coccus viridis* (Green, 1889)	Y	Y	Hand collection
-29.05	167.93	27/09/2013	Rutaceae	*Citrus* sp.	Hemiptera	Coccidae	*Coccus viridis*	Y	Y	Hand collection
-29.02	167.93	25/02/2014	Rutaceae	*Citrus* sp.	Hemiptera	Coccidae	*Coccus viridis*	Y	Y	Hand collection
-29.02	167.96	10/06/2013	Rutaceae	*Citrus* sp.	Hemiptera	Coccidae	*Coccus viridis*	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.93	26/09/2013	Rutaceae	*Citrus* sp.	Hemiptera	Coccidae	*Coccus viridis*	Y	Y	Hand collection
-29.03	167.98	20/02/2014	Rubiaceae	*Coffea arabica* L.	Hemiptera	Coccidae	*Coccus viridis*	Y	Y	Beating
-29.05	167.93	23/05/2014	Rubiaceae	*Coffea* sp.	Hemiptera	Coccidae	*Coccus viridis*	Y	Y	Hand collection
-29.03	167.98	14/06/2013	Rubiaceae	*Coffea* sp.	Hemiptera	Coccidae	*Coccus viridis*	Y	Y	Hand collection
-29.01	167.93	13/06/2013	Rubiaceae	*Coffea* sp.	Hemiptera	Coccidae	*Coccus viridis*	Y	Y	Hand collection
-29.03	167.95	25/09/2013	Araliaceae	*Meryta latifolia*	Hemiptera	Coccidae	*Coccus viridis*	Y	Y	Hand collection
-29.03	167.95	11/06/2013	Apocynaceae	*Plumeria rubra*	Hemiptera	Coccidae	*Coccus viridis*	Y	Y	Hand collection
-29.04	167.99	14/06/2013	Myrtaceae	*Psidium guajava*	Hemiptera	Coccidae	*Coccus viridis*	Y	Y	Hand collection
-29.02	167.96	10/06/2013	Solanaceae	*Solanum melongena*	Hemiptera	Coccidae	*Coccus viridis*	Y	Y	Hand collection
-29.04	167.99	14/06/2013	Rutaceae	*Casimiroa edulis*	Hemiptera	Coccidae	*Coccus viridis*	Y	Y	Hand collection
-29.02	167.96	26/03/2014	Various		Coleoptera	Coccinellidae	*Coelophora inaequalis* (Fabricius, 1775)	N	Y	Yellow pan in orchard
-29.12	167.95	14/10/2014	Aizoaceae	*Carpobrotus glaucescens* (Haw.) Schwantes	Coleoptera	Coccinellidae	*Coelophora inaequalis*	N	Y	Hand collection
-29.12	167.95	14/10/2014	Rubiaceae	*Coprosma baueri*	Coleoptera	Coccinellidae	*Coelophora inaequalis*	N	Y	Beating
-29.12	167.95	14/10/2014	Poaceae	*Digitaria* sp.	Coleoptera	Coccinellidae	*Coelophora inaequalis*	N	Y	Hand collection
-29.12	167.95	14/10/2014	Apocynaceae	*Gomphocarpus physocarpus*	Coleoptera	Coccinellidae	*Coelophora inaequalis*	N	Y	Hand collection
-29.12	167.95	15/10/2014	Apocynaceae	*Gomphocarpus physocarpus*	Coleoptera	Coccinellidae	*Coelophora inaequalis*	N	Y	Hand collection
-29.12	167.96	15/10/2014	Malvaceae	*Leguminaria patersonia*	Coleoptera	Coccinellidae	*Coelophora inaequalis*	N	Y	Beating
-29.03	167.99	20/02/2014	Solanaceae	*Nicandra physalodes* (L.) Gaertn.	Coleoptera	Coccinellidae	*Coelophora inaequalis*	N	Y	Sweep net
-29.06	167.97	25/05/2014	Unknown	Unknown	Coleoptera	Coccinellidae	*Coelophora inaequalis*	N	Y	Beating
-29.12	167.95	14/10/2014	Verbenaceae	*Verbena* L.	Coleoptera	Coccinellidae	*Coelophora inaequalis*	N	Y	Hand collection
-29.03	167.99	25/09/2013	Poaceae	*Zea mays*	Coleoptera	Coccinellidae	*Coelophora inaequalis*	N	Y	Hand collection from hydroponics
-29.00	167.93	27/02/2014	Various		Coleoptera	Coccinellidae	*Coelophora inaequalis*	N	Y	Yellow pan
-29.05	167.95	12/10/2014	NA	NA	Coleoptera	Chrysomelidae	*Colaspoides norfolcensis* Lea, 1915	N	N	Light trap
-29.03	167.95	7/10/2014	NA	NA	Coleoptera	Chrysomelidae	*Colaspoides norfolcensis*	N	N	Light trap

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.94	24/02/2014	NA	NA	Coleoptera	Chrysomelidae	*Colaspoides norfolcensis*	N	N	Light trap
-29.05	167.92	1/12/2014	NA	NA	Coleoptera	Chrysomelidae	*Colaspoides norfolcensis*	N	N	Light trap in Norfolk Island pines
-29.02	167.94	2/12/2014	NA	NA	Coleoptera	Chrysomelidae	*Colaspoides norfolcensis*	N	N	Light trap in Norfolk Island pines
-29.05	167.92	3/12/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Chrysomelidae	*Colaspoides norfolcensis*	N	N	Hand collection from felled tree #2
-29.12	167.96	15/10/2014	Convolvulaceae	*Ipomoea cairica*	Coleoptera	Coccinellidae	*Coleophora* Hübner, 1822	?	?	Beating
-29.04	167.99	8/10/2014	Solanaceae	*Solanum lycopersicum*	Araneae	Theridiidae	*Coleosoma floridanum* Banks, 1900	Y	N	Beating
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Araneae	Theridiidae	*Coleosoma* Pickard-Cambridge, 1882	Y	N	Berlese funnel from leaf litter under palms
-29.03	167.95	12/06/2013	Lamiaceae	*Rosmarinus officinalis*	Hemiptera	Flatidae	*Colgar* Kirkaldy, 1900	Y	?	Beating
-29.05	167.97	24/02/2014	Rutaceae	*Citrus ×aurantium*	Hemiptera	Flatidae	*Colgar peracutum* (Walker, 1858)	Y	Y	Hand collection
-29.04	167.93	18/02/2014	Rutaceae	*Citrus ×aurantium*	Hemiptera	Flatidae	*Colgar peracutum*	Y	Y	Hand collection
-29.02	167.96	10/06/2013	Solanaceae	*Solanum melongena*	Hemiptera	Flatidae	*Colgar peracutum*	Y	Y	Hand collection
-29.02	167.96	26/09/2013	Caricaceae	*Carica papaya*	Hemiptera	Flatidae	*Colgar peracutum*	Y	Y	Hand collection
-29.01	167.93	26/09/2013	Arecaceae	*Howea belmoreana*, *Howea forsteriana*	Hemiptera	Halimococcidae	*Calobopyga australiensis* Deitz, 1979	Y	Y	Hand collection
-29.04	167.94	23/09/2013	Arecaceae	*Howea belmoreana*, *Howea forsteriana*	Hemiptera	Halimococcidae	*Calobopyga kewensis* (Newstead, 1901)	N	Y	Hand collection
-29.00	167.93	12/06/2013	Arecaceae	*Howea forsteriana*	Hemiptera	Halimococcidae	*Calobopyga kewensis*	N	Y	Hand collection
-29.03	167.95	11/06/2013	Arecaceae	*Howea* sp.	Hemiptera	Halimococcidae	*Calobopyga kewensis*	N	Y	Hand collection
-29.00	167.93	24/09/2013	Arecaceae	*Howea belmoreana*, *Howea forsteriana*	Hemiptera	Halimococcidae	*Calobopyga kewensis*	N	Y	Hand collection
-29.03	167.92	21/05/2014	Arecaceae	*Howea* sp.	Hemiptera	Halimococcidae	*Calobopyga palmicola* Williams & Watson, 1990	N	N	Hand collection
-29.04	167.98	27/11/2014	Vitaceae	*Vitis vinifera*	Trombidiformes	Eriophyidae	*Calomerus vitis* (Pagenstecher, 1857)	Y	Y	Ethanol wash
-29.05	167.92	24/05/2014	Poaceae	Unknown	Orthoptera	Tettigoniidae	*Conocephalus* Thunberg, 1815	?	?	Sweep net
-29.03	167.99	22 - 23/03/2014	Various		Coleoptera	Elateridae	*Conoderus* Eschscholtz, 1829	?	?	Yellow pan
-29.00	167.93	24/10/2013	Various		Coleoptera	Elateridae	*Conoderus* sp.		?	Yellow pan among various young vegetables
-29.00	167.93	20/02/2014	Rutaceae	*Citrus ×aurantium*	Coleoptera	Elateridae	*Conoderus* sp.	?	?	Hand collection
-29.03	167.95	25/02/2014	NA	NA	Coleoptera	Elateridae	*Conoderus* sp.	?	?	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.92	16/10/2014	NA	NA	Coleoptera	Elateridae	*Conoderus* sp.	?	?	Light trap
-29.01	167.94	24/02/2014	NA	NA	Coleoptera	Elateridae	*Conoderus* sp.	?	?	Light trap
-29.01	167.93	3/12/2014; 27/02/2014	NA	NA	Coleoptera	Elateridae	*Conoderus* sp.	?	?	Light trap in eucalypt forest
-29.03	167.96	23/02/2014	NA	NA	Coleoptera	Elateridae	*Conoderus* sp.	?	?	Light trap garden, light trap #4
-29.05	167.95	20/02/2014	NA	NA	Coleoptera	Elateridae	*Conoderus* sp.	?	?	Light trap #2
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Elateridae	*Conoderus* sp.	?	?	Light trap #3
-29.03	167.96	25/05/2014	NA	NA	Coleoptera	Elateridae	*Conoderus* sp.	?	?	Light trap
-29.05	167.92	1/12/2014	NA	NA	Coleoptera	Elateridae	*Conoderus* sp.	?	?	Light trap in Norfolk Island pines
-29.03	167.97	27/11/2014	NA	NA	Coleoptera	Elateridae	*Conoderus* sp.	?	?	Light trap
-29.01	167.95	23/05/2014	NA	NA	Coleoptera	Elateridae	*Conoderus* sp.	?	?	Light trap Set 22.5.2014, collected 23.5.2014
-29.03	167.92	22/05/2014	Fabaceae	*Phaseolus vulgaris*	Coleoptera	Elateridae	*Conoderus* sp.	?	?	Beating
-29.06	167.96	24/06/2014	NA	NA	Diptera	Sphaeroceridae	*Copromyza* Duda, 1923	?	?	LuciLure trap
-29.05	167.95	12/10/2014	NA	NA	Diptera	Sphaeroceridae	*Copromyza* sp.	?	?	Light trap
-29.05	167.92	19/05/2014	NA	NA	Diptera	Sphaeroceridae	*Copromyza* sp.	?	?	Light trap
-29.05	167.96	28/05/2014	NA	NA	Diptera	Sphaeroceridae	*Copromyza* sp.	?	?	LuciLure trap
-29.03	167.98	29/05/2014	NA	NA	Diptera	Sphaeroceridae	*Copromyza* sp.	?	?	LuciLure trap
-29.02	167.97	24/06/2014	NA	NA	Diptera	Sphaeroceridae	*Copromyza* sp.	?	?	LuciLure trap
-29.00	167.93	21/02/2014	NA	NA	Diptera	Sphaeroceridae	*Copromyza* sp.	?	?	Bucket light trap
-29.04	167.99	25/09/2013	Caricaceae	*Carica papaya*	Stylommatophora	Helicidae	*Cornu aspersum* (Müller, 1774)	N	Y	Hand collection
-29.04	167.94	23/09/2013	NA	NA	Stylommatophora	Helicidae	*Cornu aspersum*	N	Y	Hand collection
-29.03	167.95	21/09/2013	NA	NA	Stylommatophora	Helicidae	*Cornu aspersum*	N	Y	Observation
-29.03	167.93	26/09/2013	Apiaceae	*Apium graveolens*	Stylommatophora	Helicidae	*Cornu aspersum*	N	Y	Hand collection
-29.04	167.98	9/10/2014	Anacardiaceae	*Mangifera indica*	Coleoptera	Latridiidae	*Corticaria* Marsham, 1802	Y	?	Sweep net and beating
-29.03	167.92	22/05/2014	Lamiaceae	*Ocimum basilicum*	Coleoptera	Latridiidae	*Corticaria* sp.	Y	?	Beating
-29.12	167.95	14/10/2014	Agavaceae	*Phormium tenax* J.R.Forst. & G.Forst.	Coleoptera	Latridiidae	*Corticaria* sp.	Y	?	Sweep net and beating
-29.03	167.99	23/05/2014	Euphorbiaceae	*Ricinus communis*	Coleoptera	Latridiidae	*Corticaria* sp.	Y	?	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.05	167.92	7/10/2014	Solanaceae	*Solanum lycopersicum*	Coleoptera	Latrididae	*Corticaria* sp.	Y	?	Beating
-29.03	167.99	23/12/2012	Solanaceae	*Solanum lycopersicum*	Coleoptera	Latrididae	*Corticaria* sp.	Y	?	Yellow pan
-29.04	167.99	26/05/2014	Solanaceae	*Solanum mauritianum*	Coleoptera	Latrididae	*Corticaria* sp.	Y	?	Beating
-29.01	167.92	21/05/2014	Poaceae	Unknown	Coleoptera	Latrididae	*Corticaria* sp.	Y	?	Sweep net in cattle pasture
-29.05	167.96	9/10/2014	Vitaceae	*Vitis vinifera*	Coleoptera	Latrididae	*Corticaria* sp.	Y	?	Beating
-29.04	167.99	25/05/2014	Annonaceae	*Annona reticulata* L.	Coleoptera	Latrididae	*Corticarina* Reitter, 1881	Y	?	Beating
-29.00	167.93	24/09/2013	Brassicaceae	*Brassica oleracea* var. *italica*	Coleoptera	Latrididae	*Corticarina* sp.	Y	?	Hand collection
-29.01	167.93	13/06/2013	Caricaceae	*Carica papaya*	Coleoptera	Latrididae	*Corticarina* sp.	Y	?	Beating of leaves
-29.06	167.94	22/09/2013	Lauraceae	*Persea americana*	Coleoptera	Latrididae	*Corticarina* sp.	Y	?	Hand collection
-29.03	167.99	20/02/2014	Fabaceae	*Phaseolus vulgaris*	Coleoptera	Latrididae	*Corticarina* sp.	Y	?	Hand collection
-29.03	167.98	25/09/2013	Fabaceae	*Phaseolus vulgaris*	Coleoptera	Latrididae	*Corticarina* sp.	Y	?	Hand collection from badly damaged plants
-29.03	167.93	28/11/2014	Solanaceae	*Solanum lycopersicum*	Coleoptera	Latrididae	*Corticarina* sp.	Y	?	Hand collection
-29.02	167.97	24/02/2014	NA	NA	Diptera	Sciaridae	*Corynoptera fatigans* (Johannsen, 1912)	Y	N	Culicoides trap
-29.04	167.99	23/05/2014; 14/06/2013	Proteaceae	*Macadamia integrifolia*	Lepidoptera	Carposinidae	*Coscinoptycha improbana* Meyrick, 1881	N	Y	Hand collection Larvae found in nut between green husk and shell; adult reared from nut
-29.01	167.95	23/05/2014	NA	NA	Lepidoptera	Carposinidae	*Coscinoptycha improbana*	N	Y	Light trap
-29.01	167.93	21/05/2014; 27/02/2014	NA	NA	Lepidoptera	Carposinidae	*Coscinoptycha improbana*	N	Y	Light trap in eucalypt forest
-29.03	167.96	25/05/2014	NA	NA	Lepidoptera	Carposinidae	*Coscinoptycha improbana*	N	Y	Light trap
-29.03	167.97	22/05/2014	NA	NA	Lepidoptera	Carposinidae	*Coscinoptycha improbana*	N	Y	Light trap
-29.05	167.94	26/02/2014	Myrtaceae	*Psidium guajava*	Lepidoptera	Carposinidae	*Coscinoptycha improbana*	N	Y	Reared in lab
-29.04	167.99	26/05/2014	Rutaceae	*Citrus reticulata*	Lepidoptera	Carposinidae	*Coscinoptycha improbana*	N	Y	Hand collection larvae in fruit
-29.04	167.96	9/10/2014	Caricaceae	*Carica papaya*	Coleoptera	Silvanidae	*Cryptamorpha desjardinsi* (Guérin-Méneville, 1844)	N	Y	Beating
-29.04	167.99	8/10/2014	Rutaceae	*Citrus ×aurantium*	Coleoptera	Silvanidae	*Cryptamorpha desjardinsi*	N	Y	Hand collection
-29.05	167.92	7/10/2014	Asparagaceae	*Cordyline obtecta*	Coleoptera	Silvanidae	*Cryptamorpha desjardinsi*	N	Y	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.93	26/11/2014	Myrtaceae	*Eucalyptus* sp.	Coleoptera	Silvanidae	*Cryptamorpha desjardinsi*	N	Y	Hand collection from under timber
-29.03	167.93	19/02/2014	Asteraceae	*Lactuca sativa*	Coleoptera	Silvanidae	*Cryptamorpha desjardinsi*	N	Y	Beating
-29.04	167.96	9/10/2014	Musaceae	*Musa* sp.	Coleoptera	Silvanidae	*Cryptamorpha desjardinsi*	N	Y	Beating
-29.04	167.94	23/09/2013	Musaceae	*Musa* sp.	Coleoptera	Silvanidae	*Cryptamorpha desjardinsi*	N	Y	Hand collection
-29.03	167.96	19/02/2014	NA	NA	Coleoptera	Silvanidae	*Cryptamorpha desjardinsi*	N	Y	Light trap #1
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Silvanidae	*Cryptamorpha desjardinsi*	N	Y	Light trap #3
-29.03	167.96	25/09/2013	NA	NA	Coleoptera	Silvanidae	*Cryptamorpha desjardinsi*	N	Y	Hand collection from timber
-29.01	167.95	25/12/2012	Lomariopsidaceae	*Nephrolepis* sp.	Coleoptera	Silvanidae	*Cryptamorpha desjardinsi*	N	Y	Yellow pan
-29.00	167.93	12/06/2013	Lauraceae	*Persea americana*	Coleoptera	Silvanidae	*Cryptamorpha desjardinsi*	N	Y	Hand collection from fruit
-29.05	167.92	24/05/2014	Poaceae	Unknown	Coleoptera	Silvanidae	*Cryptamorpha desjardinsi*	N	Y	Sweep net
-29.05	167.93	24/09/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Silvanidae	*Cryptamorpha desjardinsi*	N	Y	Hand collection from felled tree
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Stylommatophora	Charopidae	*Cryptocharopa exagitans* (Cox, 1870)	N	N	Berlese funnel from leaf litter under palms
-29.03	167.93	26/09/2013	Bromeliaceae	*Ananas comosus* (L.) Merr.	Coleoptera	Coccinellidae	*Cryptolaemus?* sp.	?	?	Hand collection
-29.03	167.97	27/11/2014	NA	NA	Coleoptera	Laemophloeidae	*Cryptolestes norfolcensis* (Lea, 1929)	N	N	Light trap
-29.03	167.96	25/09/2013	NA	NA	Coleoptera	Laemophloeidae	*Cryptolestes norfolcensis*	N	N	Hand collection from timber
-29.02	167.93	25/02/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Laemophloeidae	*Cryptolestes norfolcensis*	N	N	Hand collection from under bark of billets
-29.03	167.99	25/09/2013	NA	NA	Diptera	Culicidae	*Culex* Linnaeus, 1758	?	?	Dipping
-29.05	167.92	7/10/2014	NA	NA	Diptera	Culicidae	*Culex* sp.	?	?	Culicoides trap. Set 7.10.14, collected 11.10.14, pinned, damaged specimen (scales missing)
-29.02	167.93	12/10/2014	NA	NA	Diptera	Culicidae	*Culex australicus* (Erichson, 1842)	Y	Y	Hand collection (larvae)
-29.03	167.96	23/02/2014	NA	NA	Diptera	Culicidae	*Culex* cf. *pervigilans*	N	N	CO2 light trap
-29.00	167.93	24/09/2013	NA	NA	Diptera	Culicidae	*Culex* cf. *pervigilans*	N	N	Hand collection (larvae)
-29.05	167.97	21/02/2014	NA	NA	Diptera	Culicidae	*Culex* cf. *pervigilans*	N	N	Dipping in water
-29.02	167.92	27/09/2013	NA	NA	Diptera	Culicidae	*Culex* cf. *pervigilans*	N	N	Hand collection (larvae, water trough)

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.02	167.93	26/05/2014	NA	NA	Diptera	Culicidae	*Culex pervigilans* Bergroth, 1889	N	N	Dipping Tyre track in driveway adjacent shade house holding water
-29.06	167.96	24/02/2014	NA	NA	Diptera	Culicidae	*Culex pervigilans*	N	N	Dipping, ground pool
-29.02	167.96	26/05/2014	NA	NA	Diptera	Culicidae	*Culex pervigilans*	N	N	Hand collection, Tarpaulin holding water, larvae
-29.02	167.96	26/09/2013	NA	NA	Diptera	Culicidae	*Culex pervigilans*	N	N	Dipping, pooled water
-29.02	167.97	21/02/2014	NA	NA	Diptera	Culicidae	*Culex pervigilans*	N	N	Dipping in brackish water ground pool
-29.05	167.97	22/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus* Say, 1823	N	Y	CO2 light trap
-29.03	167.94	19/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	CO2 light trap
-29.03	167.96	23/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	CO2 light trap
-29.03	167.96	25/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	CO2 light trap
-29.02	167.95	24/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	CO2 light trap
-29.04	167.94	24/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Dipping, 44 gallon drum
-29.05	167.97	21/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Dipping, Bin for striking plants
-29.00	167.93	20/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Dipping, Surveillance, water tank with hole in side
-29.02	167.93	26/05/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Dipping, Track in driveway adjacent shade house holding water
-29.05	167.97	13/06/2013	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Hand collection, drum, larvae
-29.03	167.97	20/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Dipping, Ground pool in cow hoof print
-29.04	167.98	9/10/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Dipping, Plant holding platform with pooling water, larvae
-29.04	167.94	24/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Dipping, rock pool
-29.03	167.96	22/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Dipping
-29.04	167.94	23/09/2013	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Hand collection, rock pool
-29.03	167.96	22/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	CO2 light trap, soda stream cylinder
-29.05	167.94	19/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Dipping, surveillance, fish pond
-29.00	167.93	20/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Dipping, surveillance, metal tank

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.05	167.95	20/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	CO_2 light trap, surveillance, public land – CO_2 light trap
-29.04	167.94	19/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Dipping, Surveillance, public land, used tyres in fence
-29.00	167.93	20/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Dipping, Surveillance, receptacles in boat
-29.04	167.98	20/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Dipping, Surveillance, water troughs
-29.02	167.96	26/05/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Hand collection, Tarpaulin holding water
-29.03	167.95	11/06/2013	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Hand collection, Tyre, kentia palm nursery, larvae and pupae
-29.03	167.95	19/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Dipping, used tyres
-29.03	167.96	23/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Dipping, Water tank and tyres
-29.06	167.94	11/10/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Dipping, Wheelbarrow with tarpaulin, larvae
-29.03	167.94	24/02/2014	NA	NA	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	CO_2 light trap, windy night
-29.05	167.93	24/02/2014	Moraceae	*Ficus carica*	Diptera	Culicidae	*Culex quinquefasciatus*	N	Y	Dipping, hollow in fig
-29.03	167.98	25/09/2013	Solanaceae	*Solanum mauritianum*	Hemiptera	Pentatomidae	*Cuspicona* Dallas, 1851	?	?	Beating
-29.03	167.94	10/10/2014	Brassicaceae	*Eruca sativa* Mill.	Araneae	Araneidae	*Cyclosa* Menge, 1866	?	?	Hand collection
-29.01	167.93	21/05/2014	Solanaceae	*Solanum mauritianum*	Sarcoptiformes		*Czenspinskia transversostriata* (Oudemans, 1931)	Y	Y	Beating, eucalypt forest
-29.04	167.99	23/05/2014	Myrtaceae	*Psidium guajava*	Sarcoptiformes		*Czenspinskia transversostriata*	Y	Y	Beating
-29.01	167.94	24/02/2014	NA	NA	Diptera	Stratiomyidae	*Damaromyia* Kertész, 1916	Y	?	Light trap
-29.12	167.95	15/10/2014	Apocynaceae	*Gomphocarpus physocarpus*	Lepidoptera	Nymphalidae	*Danaus plexippus* (Linnaeus, 1758)	N	N	Hand collection, late instar caterpillar
-29.03	167.93	10/10/2014	Poaceae	*Digitaria* sp.	Coleoptera	Anthribidae	*Dasyanthribus* Holloway, 1982	Y	?	Sweep net
-29.02	167.92	25/05/2014	Myrtaceae	*Eucalyptus* sp.	Coleoptera	Anthribidae	*Dasyanthribus* sp.	Y	?	Trapping, eucalypt litter
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Coleoptera	Anthribidae	*Dasyanthribus* sp.	Y	?	Berlese funnel from leaf litter under palms
-29.04	167.96	2/06/2014	Unknown	Unknown	Diptera	Anthomyiidae	*Delia urbana* (Malloch, 1924)	N	Y	Unknown
-29.03	167.96	25/05/2014	NA	NA	Coleoptera	Chrysomelidae	*Dematochroma norfolkiana* Jolivet, Verma & Mille, 2006	N	N	Light trap

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.93	16/10/2014	Unknown	Unknown	Thysanoptera	Thripidae	*Dendrothrips* Uzel, 1895	Y	?	Beating
-29.04	167.99	25/05/2014	Annonaceae	*Annona reticulata*	Thysanoptera	Thripidae	*Dendrothrips diaspora* Mound, 1999	Y	Y	Beating
-29.01	167.94	21/03/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection from terminal leaves
-29.05	167.92	7/10/2014	Euphorbiaceae	*Baloghia inophylla*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Beating
-29.01	167.94	24/12/2013	Euphorbiaceae, Oleaceae	*Baloghia inophylla, Jasminum* sp.	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection
-29.03	167.92	21/05/2014	Caricaceae	*Carica papaya*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Beating
-29.04	167.99	22/05/2014	Rutaceae	*Citrus* sp.	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Beating
-29.03	167.94	10/10/2014	Rutaceae	*Citrus* sp.	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection
-29.01	167.93	16/10/2014	Rubiaceae	*Coffea arabica*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection
-29.03	167.99	21/12/2013	Rubiaceae	*Coffea* sp.	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection
-29.05	167.93	25/03/2014	Commelinaceae	*Commelina cyanea*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection from leaves
-29.02	167.94	27/03/2014	Rubiaceae	*Coprosma baueri*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection from leaves
-29.02	167.94	26/03/2014	Sapindaceae	*Dodonaea viscosa* laca. subsp. *viscosa*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection from leaves
-29.01	167.94	22/03/2014	Polygonaceae	*Muehlenbeckia australis* (G.Forst.) Meisn.	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection
-29.01	167.94	22/03/2014	Scrophulariaceae	*Myoporum obscurum* Endl.	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection
-29.01	167.94	26/03/2014; 22/03/2014	Scrophulariaceae	*Myoporum obscurum*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection
-29.04	167.96	24/11/2014	Scrophulariaceae	*Myoporum obscurum*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection from flowers
-29.02	167.97	24/05/2014	NA	NA	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Culicoides trap Set 21.5.2014, collected 24.5.2014
-29.03	167.94	23/05/2014	Oleaceae	*Nestegis apetala*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Trapping
-29.02	167.96	25/12/2013	Oleaceae	*Nestegis apetala*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection
-29.01	167.94	11/07/2013	Oleaceae	*Nestegis apetala*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection
-29.02	167.93	27/09/2013	Oleaceae	*Nestegis apetala*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection
-29.04	167.99	25/11/2014	Oleaceae	*Nestegis apetala*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection from leaves
-29.01	167.94	24/12/2012	Oleaceae	*Nestegis apetala*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection from leaves

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.93	16/10/2014	Oleaceae	*Olea europaea* subsp. *cuspidata*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection
-29.03	167.95	26/09/2013	Passifloraceae	*Passiflora edulis*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection
-29.04	167.99	23/11/2014	Apiaceae	*Petroselinum crispum*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection
-29.02	167.96	23/10/2013	Pittosporaceae	*Pittosporum* sp.	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection from leaves
-29.02	167.95	25/12/2013	Rosaceae	*Prunus persica* var. *nersica*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection from young leaves
-29.01	167.95	22/11/2014	Myrtaceae	*Psidium cattleyanum* var. *cattleyanum*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection, from dead branch
-29.02	167.96	9/07/2013	Poaceae	*Saccharum officinarum*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection from dead sugar cane leaves
-29.01	167.94	25/11/2014; 24/10/2013	Moraceae	*Streblus pendulinus* (Endl.) F.Muell.	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection from leaves
-29.01	167.95	26/10/2013	Unknown	Unknown	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection
-29.03	167.99	24/11/2014	Poaceae	*Zea mays*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection from corn tassels and leaves
-29.01	167.94	22/10/2013	Apocynaceae	*Alyxia gynopogon*	Thysanoptera	Thripidae	*Dendrothrips diaspora*	Y	Y	Hand collection
-29.02	167.94	25/10/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Deplorothrips norfuki* Mound & Tree, 2016	Y	?	Hand collection, litter
-29.01	167.94	25/11/2014	Rutaceae	*Citrus* ×*jambhiri* Lush.	Thysanoptera	Phlaeothripidae	*Deplorothrips norfuki*	Y	?	Hand collection from dead branch
-29.02	167.94	22/12/2013; 25/10/2013	Rutaceae	*Citrus* ×*jambhiri*	Thysanoptera	Phlaeothripidae	*Deplorothrips norfuki*	Y	?	Hand collection, dead branches
-29.01	167.94	24/03/2014; 30/11/2014	Rutaceae	*Citrus* sp.	Thysanoptera	Phlaeothripidae	*Deplorothrips norfuki*	Y	?	Hand collection from dead branch
-29.01	167.94	21/10/2013	Asparagaceae	*Cordyline obtecta*	Thysanoptera	Phlaeothripidae	*Deplorothrips norfuki*	Y	?	Hand collection, berlesate from litter
-29.02	167.95	24/12/2013	Celastraceae	*Elaeodendron curtipendulum*	Thysanoptera	Phlaeothripidae	*Deplorothrips norfuki*	Y	?	Hand collection from lichens
-29.04	167.96	25/10/2013	Verbenaceae	*Lantana camara*	Thysanoptera	Phlaeothripidae	*Deplorothrips norfuki*	Y	?	Hand collection
29.02	167.96	25/12/2012	Meliaceae	*Toona ciliata* M.Roem.	Thysanoptera	Phlaeothripidae	*Deplorothrips norfuki*	Y	?	Hand collection, dead branches
-29.01	167.95	22/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Deplorothrips norfuki*	Y	?	Hand collection, dead branches
-29.01	167.94	30/11/2014; 23/12/2012	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Deplorothrips norfuki*	Y	?	Hand collection, dead branches
-29.01	167.94	22/12/2012	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Deplorothrips norfuki*	Y	?	Hand collection from dead twigs on ground
-29.02	167.95	20/12/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Deplorothrips norfuki*	Y	?	Hand collection, dead branches

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.95	25/12/2012	Lomariopsidaceae	*Nephrolepis* sp.	Hemiptera	Miridae	*Deraeocoris* Kirschbaum, 1856	Y	?	Yellow pan
-29.01	167.94	11/06/2013	Meliaceae	*Dysoxylum bijugum*	Hemiptera	Miridae	*Deraeocoris* sp.	Y	?	Hand collection
-29.03	167.93	12/06/2013	Cucurbitaceae	*Cucumis sativus*	Stylommatophora	Agrolimacidae	*Deroceras invadens* Reise, Hutchinson, Schunack & Schlitt, 2011	N?	Y	Hand collection
-29.02	167.97	22/09/2013	NA	NA	Stylommatophora	Agrolimacidae	*Deroceras invadens*	N?	Y	Hand collection
-29.02	167.97	22/09/2013	NA	NA	Stylommatophora	Agrolimacidae	*Deroceras invadens*	N?	Y	Hand collection
-29.06	167.94	22/09/2013	Araucariaceae	*Araucaria heterophylla*	Stylommatophora	Agrolimacidae	*Deroceras invadens*	N?	Y	Hand collection from timber
-29.01	167.95	25/12/2012	Lomariopsidaceae	*Nephrolepis* sp.	Hymenoptera	Ichneumonidae	*Diadromus* Wesmael, 1845	Y	?	Yellow pan
-29.00	167.93	24/12/2012	Lamiaceae	*Ocimum basilicum*	Hymenoptera	Ichneumonidae	*Diadromus* sp.	Y	?	Beating flowering plants
-29.03	167.99	22 - 23/03/2014	Various		Hymenoptera	Ichneumonidae	*Diadromus* sp.	Y	?	Yellow pan among various vegetables
-29.03	167.93	12/06/2013; 26/09/2013	Bromeliaceae	*Ananas comosus*	Hemiptera	Diaspididae	*Diaspis bromeliae* (Kerner, 1778)	Y	Y	Hand collection
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Orthoptera	Trigonidiidae	*Dictyonemobius lateralis* Chopard, 1951	N	N	Berlese funnel from leaf litter under palms
-29.05	167.97	21/02/2014	Fabaceae	*Phaseolus* sp.	Hemiptera	Pentatomidae	*Dictyotus caenosus* (Westwood, 1837)	N	Y	Hand collection
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Scarabaeidae	*Digitonthophagus gazella* (Fabricius, 1787)	N	Y	Light trap #3
-29.03	167.97	28/11/2014	NA	NA	Coleoptera	Scarabaeidae	*Digitonthophagus gazella*	N	Y	Light trap
-29.05	167.95	20/02/2014	NA	NA	Coleoptera	Scarabaeidae	*Digitonthophagus gazella*	N	Y	Light trap
-29.03	167.97	18/02/2014	NA	NA	Coleoptera	Tenebrionidae	*Dioedus araucariae* (Lea, 1929)	N	N	Hand collection from timber billets
-29.04	167.94	23/09/2013	Euphorbiaceae	*Baloghia inophylla*	Coleoptera	Coccinellidae	*Diomus* Mulsant, 1850	Y	?	Hand collection
-29.04	167.98	9/10/2014	Asparagaceae	*Cordyline obtecta*	Coleoptera	Coccinellidae	*Diomus* sp.	Y	?	Sweep net and beating
-29.02	167.97	22/09/2013	Sapindaceae	*Dodonaea viscosa* subsp. *viscosa*	Coleoptera	Coccinellidae	*Diomus* sp.	Y	?	Sweep net
-29.05	167.92	23/05/2014	Convolvulaceae	*Ipomoea cairica*	Coleoptera	Coccinellidae	*Diomus* sp.	Y	?	Beating
-29.05	167.93	12/07/2013	Fabaceae	*Medicago sativa*	Coleoptera	Coccinellidae	*Diomus* sp.	Y	?	Beating
-29.02	167.97	4/04/2014	NA	NA	Coleoptera	Coccinellidae	*Diomus* sp.	Y	?	Hand collection
-29.00	167.94	24/02/2014	Hemerocallidaceae	*Phormium tenax*	Coleoptera	Coccinellidae	*Diomus* sp.	Y	?	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.93	16/10/2014	Myrtaceae	*Psidium cattleyanum* var. *cattleyanum*	Coleoptera	Coccinellidae	*Diomus* sp.	Y	?	Hand collection
-29.03	167.98	25/09/2013	Solanaceae	*Solanum melongena*	Coleoptera	Coccinellidae	*Diomus* sp.	Y	?	Beating
-29.01	167.93	16/10/2014	Unknown	Unknown	Coleoptera	Coccinellidae	*Diomus* sp.	Y	?	Beating
-29.03	167.99	21/02/2014	Poaceae	*Triticum* sp.	Coleoptera	Coccinellidae	*Diomus notescens* (Blackburn, 1889)	Y	Y	Hand collection
-29.02	167.97	22/12/2012	Polygonaceae	*Rumex brownii*	Coleoptera	Coccinellidae	*Diomus notescens*	Y	Y	Sweep net of dead seed heads
-29.06	167.94	26/11/2014	NA	NA	Coleoptera	Cerambycidae	*Diotimana undulata* (Pascoe, 1859)	N	Y	Light trap
-29.01	167.93	27/02/2014	NA	NA	Coleoptera	Cerambycidae	*Diotimana undulata*	N	Y	Light trap in eucalypt forest
-29.03	167.96	19/02/2014	NA	NA	Coleoptera	Cerambycidae	*Diotimana undulata*	N	Y	Light trap #1
-29.05	167.93	26/11/2014	NA	NA	Coleoptera	Cerambycidae	*Diotimana undulata*	N	Y	Light trap in Norfolk Island pines
-29.05	167.92	1/12/2014; 19/05/2014; 26/05/2014; 19/05/2014	NA	NA	Coleoptera	Cerambycidae	*Diotimana undulata*	N	Y	Light trap in Norfolk Island pines
-29.02	167.94	2/12/2014	NA	NA	Coleoptera	Cerambycidae	*Diotimana undulata*	N	Y	Light trap in Norfolk Island pines
-29.05	167.93	14/06/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Cerambycidae	*Diotimana undulata*	N	Y	Hand collection
-29.03	167.99	23/10/2013	Various		Diptera	Tephritidae	*Dioxyna brachybasis* Hardy, 1988	Y	Y	Yellow pan among various young vegetables
-29.02	167.96	25/12/2012	Cucurbitaceae		Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Beating
-29.00	167.93	24/10/2013	Various		Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Yellow pan among various young vegetables
-29.00	167.93	23 - 24/03/2014; 27/02/2014	Various		Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Yellow pan among various vegetables
-29.02	167.96	26/03/2014	Various		Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Yellow pan in orchard
-29.04	167.93	18/02/2014	Alliaceae	*Allium cepa* L.	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Hand collection
-29.00	167.93	26/12/2012	Various, Apiaceae, Brassicaceae	*Apium graveolens*	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Yellow pan near bananas
-29.01	167.95	25/12/2012	Araucariaceae	*Araucaria heterophylla*	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Yellow pan under plant
-29.05	167.94	22/09/2013	Brassicaceae	*Brassica oleracea* var. *capitata*	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Hand collection
-29.06	167.94	11/10/2014	Poaceae	*Cenchrus clandestinus*	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Sweep net

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.93	24/09/2013	Cucurbitaceae	*Cucurbita maxima*	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Sweep net
-29.03	167.98	22/05/2014	Apiaceae	*Daucus carota*	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Beating
-29.03	167.99	21/02/2014	Fabaceae	*Glycine max*	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Hand collection
-29.12	167.95	15/10/2014	Apocynaceae	*Gomphocarpus physocarpus*	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Hand collection
-29.00	167.93	20/02/2014	Convolvulaceae	*Ipomoea batatas*	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Hand collection
-29.04	167.99	25/11/2014	Malvaceae	*Leguinaria paterssonia*	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Hand collection
-29.12	167.95	14/10/2014	Verbenaceae	*Lantana camara*	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Hand collection
-29.03	167.99	24/12/2012	Musaceae	*Musa* sp.	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Yellow pan
-29.00	167.93	26/12/2012	Musaceae, Asteraceae	*Musa* sp., *Lactuca sativa*	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Yellow pan
-29.03	167.94	26/05/2014	NA	NA	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Light trap Set 25.5.2014 collected 26.5.2014
-29.01	167.95	25/12/2012	Lomariopsidaceae	*Nephrolepis* sp.	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Yellow pan
-29.00	167.93	24/12/2012	Lamiaceae	*Ocimum basilicum*	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Beating flowering plants
-29.00	167.93	26/12/2012	Various, Apiaceae, Brassicaceae	*Ocimum basilicum*, *Musa* sp.	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Yellow pan
-29.03	167.99	25/09/2013	Fabaceae	*Phaseolus vulgaris*	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Hand collection
-29.06	167.94	22/09/2013	Plantaginaceae	*Plantago lanceolata* L.	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Sweep net
-29.00	167.93	25/11/2014	Solanaceae	*Solanum lycopersicum*	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Sweep net
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Yellow pan
-29.03	167.98	25/09/2013	Solanaceae	*Solanum melongena*	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Beating
-29.03	167.99	21/02/2014	Poaceae	*Triticum* sp.	Diptera	Tephritidae	*Dioxyna brachybasis*			Hand collection
-29.04	167.99	8/10/2014	Various	Unknown	Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Sweep net through grass and weeds in orchard
-29.04	167.96	27/02/2014	Various		Diptera	Tephritidae	*Dioxyna brachybasis*	Y	Y	Yellow pan among various young vegetables
-29.03	167.99	20/02/2014	Polygonaceae, Asteraceae	*Rheum rhabobarum* L., *Bidens pilosa*	Diptera	Tephritidae	*Dioxyna hyalina* Hardy & Drew, 1996	Y	Y	Sweep net
-29.00	167.93	26/12/2012	Various, Apiaceae, Brassicaceae	*Apium graveolens*	Diptera	Tephritidae	*Dioxyna sororcula* (Wiedemann, 1830)	Y	Y	Yellow pan near banana
-29.01	167.95	25/12/2012	Araucariaceae	*Araucaria heterophylla*	Diptera	Tephritidae	*Dioxyna sororcula*	Y	Y	Yellow pan under plant

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.93	26/12/2012	Musaceae, Asteraceae	*Musa* sp., *Lactuca sativa*	Diptera	Tephritidae	*Dioxyna sororcula*	Y	Y	Yellow pan
-29.01	167.95	25/12/2012	Lomariopsidaceae	*Nephrolepis* sp.	Diptera	Tephritidae	*Dioxyna sororcula*	Y	Y	Yellow pan
-29.00	167.93	24/12/2012	Lamiaceae	*Ocimum basilicum*	Diptera	Tephritidae	*Dioxyna sororcula*	Y	Y	Beating flowering plants
-29.00	167.93	26/12/2012	Lamiaceae, Brassicaceae, Musaceae	*Ocimum basilicum*, *Musa* sp.	Diptera	Tephritidae	*Dioxyna sororcula*	Y	Y	Yellow pan
-29.00	167.93	23 - 24/03/2014; 24/10/2013	Various		Diptera	Tephritidae	*Dioxyna sororcula*	Y	Y	Yellow pan
-29.05	167.95	20/02/2014	NA	NA	Neuroptera	Myrmeleontidae	*Distoleon bistrigatus* (Rambur, 1842)	N	Y	Light trap
-29.01	167.92	16/10/2014	NA	NA	Coleoptera	Ptinidae	*Dorcatoma* Paykul, 1798	?	?	Light trap
-29.02	167.94	2/12/2014	NA	NA	Coleoptera	Ptinidae	*Dorcatoma* sp.	?	?	Light trap among Norfolk Island pines
-29.02	167.93	25/02/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Dryophthorus* Germar, 1824	?	?	Hand collection under bark of billets
-29.03	167.97	21/05/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Dryophthorus* sp.	?	?	Hand collection from sawn timber
-29.01	167.94	24/12/2012	Pandanaceae	*Freycinetia banksia?*	Coleoptera	Curculionidae	*Dryophthorus* sp.	?	?	Beating dead leaves
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Curculionidae	*Dryophthorus* sp.	?	?	Light trap #3
-29.05	167.93	24/09/2013	Unknown	Unknown	Hypsogastropoda	Assimineidae	*Duritropis albocarinata* (Mousson, 1873)	N	N	Hand collection
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Hypsogastropoda	Assimineidae	*Duritropis albocarinata*	N	N	Berlese funnel from leaf litter under palms
		18/07/2013	Araucariaceae	*Araucaria heterophylla*	Hypsogastropoda	Assimineidae	*Duritropis albocarinata*	N	N	Hand collection
-29.03	167.98	14/06/2013	Apiaceae	*Daucus carota*	Hemiptera	Aphididae	*Dysaphis* Börner, 1931	Y	?	Hand collection
-29.01	167.95	25/02/2014	Asparagaceae	*Cordyline obtecta*	Hemiptera	Pseudococcidae	*Dysmicoccus* Ferris, 1905 sp.nov.	Y	?	Hand collection
-29.03	167.94	24/05/2014	Asparagaceae	*Cordyline obtecta*	Hemiptera	Pseudococcidae	*Dysmicoccus* sp. nov?	Y	N	Sweep net
-29.03	167.93	12/06/2013; 26/09/2013	Bromeliaceae	*Ananas comosus*	Hemiptera	Pseudococcidae	*Dysmicoccus brevipes* (Cockerell, 1893)	Y	Y	Hand collection
-29.04	167.94	9/06/2013	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Pseudococcidae	*Dysmicoccus insulae* Williams & Watson, 1988	N	N	Hand collection
-29.05	167.93	24/09/2013; 27/09/2013	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Pseudococcidae	*Dysmicoccus insulae*	N	N	Hand collection from felled tree
-29.05	167.92	27/09/2013	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Pseudococcidae	*Dysmicoccus insulae*	N	N	Hand collection from felled tree
-29.12	167.95	14/10/2014	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Pseudococcidae	*Dysmicoccus insulae*	N	N	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.06	167.96	27/09/2013	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Pseudococcidae	*Dysmicoccus insulae*	N	N	Hand collection
-29.05	167.93	2/12/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Cerambycidae	*Dysthaeta naevia* Olliff, 1888	N	N	Hand collection from felled tree #1
-29.04	167.94	23/09/2013	Arecaceae	*Howea belmoreana*, *Howea forsteriana*	Blattodea	Ectobiidae	*Ectoneura insularis* Hebard, 1943	Y	Y	Hand collection
-29.02	167.93	26/09/2013	Malvaceae	*Hibiscus insularis* Endl.	Blattodea	Ectobiidae	*Ectoneura insularis*	Y	Y	Hand collection
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Psocodea	Ectopsocidae	*Ectopsocus insularis*	N	Y	Berlese funnel from leaf litter under palms
-29.01	167.95	25/12/2012	Araucariaceae	*Araucaria heterophylla*	Diptera	Hybotidae	*Elaphropeza* Macquart, 1827	Y	?	Yellow pan under plant
-29.00	167.93	24/09/2013	Arecaceae	*Howea belmoreana*, *Howea forsteriana*	Araneae	Clubionidae	*Elaver* Pickard-Cambridge, 1898	Y	N	Hand collection
-29.01	167.93	20/05/2014	Poaceae	*Paspalum* L.	Hemiptera	Reduviidae	*Empicoris* Wolff, 1811	?	?	Sweep net in eucalypt forest
-29.03	167.94	26/05/2014	NA	NA	Lepidoptera	Pyralidae	*Endotricha mesenterialis* (Walker, 1859)	N	Y	Light trap
-29.03	167.96	19/02/2014	NA	NA	Lepidoptera	Pyralidae	*Endotricha mesenterialis*	N	Y	Light trap
-29.03	167.96	23/02/2014	NA	NA	Lepidoptera	Pyralidae	*Endotricha mesenterialis*	N	Y	Light trap
-29.01	167.94	23/05/2014	NA	NA	Lepidoptera	Pyralidae	*Endotricha mesenterialis*	N	Y	Light trap
-29.01	167.94	24/02/2014	NA	NA	Lepidoptera	Pyralidae	*Endotricha mesenterialis*	N	Y	Light trap
-29.01	167.93	27/02/2014	NA	NA	Lepidoptera	Pyralidae	*Endotricha mesenterialis*	N	Y	Light trap in eucalypt forest
-29.00	167.93	22/02/2014	NA	NA	Lepidoptera	Pyralidae	*Endotricha mesenterialis*	N	Y	Bucket light trap in orchard
-29.03	167.97	22/05/2014	NA	NA	Lepidoptera	Pyralidae	*Endotricha mesenterialis*	N	Y	Light trap
-29.05	167.95	20/02/2014	NA	NA	Lepidoptera	Pyralidae	*Endotricha mesenterialis*	N	Y	Light trap
Unknown	Unknown	23/10/2013	Unknown	Unknown	Coleoptera	Latridiidae	*Enicmus* C.G. Thomson, 1859	Y	?	Unknown
-29.03	167.99	23/05/2014	Euphorbiaceae	*Ricinus communis*	Coleoptera	Cerambycidae	*Enicodes* Gray, 1832	?	N	Beating
-29.05	167.92	24/05/2014	Poaceae	Unknown	Coleoptera	Cerambycidae	*Enicodes* sp.	?	N	Sweep net
-29.05	167.93	24/09/2013; 14/06/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Cerambycidae	*Enicodes fichteli* (Schreibers, 1802)	N	N	Hand collection
-29.04	167.99	25/09/2013	Caricaceae	*Carica papaya*	Coleoptera	Cerambycidae	*Enicodes fichteli*	N	N	Hand collection
-29.02	167.96	25/12/2012	Rosaceae	*Malus pumila*	Coleoptera	Cerambycidae	*Enicodes fichteli*	N	N	Beating
-29.03	167.94	11/06/2013	Araliaceae	*Meryta angustifolia*	Coleoptera	Cerambycidae	*Enicodes fichteli*	N	N	Hand collection
-29.03	167.94	11/06/2013	Araliaceae	*Meryta latifolia*	Coleoptera	Cerambycidae	*Enicodes fichteli*	N	N	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.56	Unknown	NA	NA	Coleoptera	Cerambycidae	*Enicodes fichteli*	N	N	Hand collection
-29.03	167.97	18/02/2014	NA	NA	Coleoptera	Cerambycidae	*Enicodes fichteli*	N	N	Hand collection from timber
-29.12	167.95	15/10/2014	Various		Coleoptera	Cerambycidae	*Enicodes fichteli*	N	N	Hand collection
-29.04	167.94	28/02/2014	NA	NA	Hymenoptera	Ichneumonidae	*Enicospilus insularis* (Kirby, 1881)	Y	Y	Light trap
-29.03	167.96	19/02/2014	NA	NA	Coleoptera	Hydrophilidae	*Enochrus* C.G. Thomson, 1859	Y	?	Light trap #1
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Hydrophilidae	*Enochrus* sp.	Y	?	Light trap #3
-29.01	167.94	24/10/2013; 22/03/2014; 24/12/2013; 25/11/2014	Moraceae	*Streblus pendulinus*	Thysanoptera	Thripidae	*Ensiferothrips primus* Bianchi, 1945	Y	Y	Hand collection from leaves
-29.01	167.94	22/03/2014	Polygonaceae	*Muehlenbeckia australis*	Thysanoptera	Thripidae	*Ensiferothrips primus*	Y	Y	Hand collection
-29.03	167.93	19/02/2014	Solanaceae		Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata* (Fabricius, 1775)	Y	Y	Hand collection
-29.03	167.99	22 - 23/03/2014; 23/10/2013	Various		Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata*	Y	Y	Yellow pan among various vegetables
-29.00	167.93	23 - 24/03/2014; 27/02/2014	Various		Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata*	Y	Y	Yellow pan among various vegetables
-29.03	167.94	19/02/2014	Solanaceae	*Capsicum annuum*	Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata*	Y	Y	Hand collection
-29.06	167.96	24/05/2014	Asparagaceae	*Corbyline* sp.	Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata*	Y	Y	Hand collection
-29.03	167.99	24/12/2012	Cucurbitaceae	*Cucurbita pepo*	Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata*	Y	Y	Yellow pan in bare soil beside cucurbits
-29.02	167.97	24/06/2014	NA	NA	Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata*	Y	Y	LuciLure trap
-29.03	167.98	22/05/2014	Solanaceae	*Nicandra physalodes*	Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata*	Y	Y	Beating
-29.04	167.98	9/10/2014	Solanaceae	*Solanum lycopersicum*	Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata*	Y	Y	Beating
-29.03	167.99	23/12/2012	Solanaceae	*Solanum lycopersicum*	Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata*	Y	Y	Yellow pan
-29.03	167.98	25/09/2013; 14/06/2013	Solanaceae	*Solanum melongena*	Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata*	Y	Y	Beating
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata*	Y	Y	Yellow pan among plants
-29.02	167.97	22/09/2013	Solanaceae	*Solanum nodiflorum*	Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata*	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.99	25/11/2014	Solanaceae	*Solanum tuberosum*	Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata*	Y	Y	Hand collection
-29.03	167.93	12/06/2013	Solanaceae	*Solanum tuberosum*	Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata*	Y	Y	Hand collection
-29.03	167.99	21/02/2014	Poaceae	*Triticum* sp.	Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata*	Y	Y	Hand collection
-29.03	167.99	23/12/2012	Poaceae, Brassicaceae	*Zea mays*, *Brassica oleracea* var. *italica*	Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata*	Y	Y	Yellow pan among old corn and young broccoli
-29.03	167.99	22 - 23/03/2014	Various		Coleoptera	Coccinellidae	*Epilachna vigintioctopunctata*	Y	Y	Yellow pan
-29.04	167.99	23 - 24/03/2014	Various		Coleoptera	Nitidulidae	*Epuraea* Erichson, 1843	?	?	Yellow pan among various vegetables
-29.03	167.99	23/10/2013	Various		Coleoptera	Nitidulidae	*Epuraea* sp.	?	?	Yellow pan among various vegetables
-29.02	167.96	10/06/2013	Rutaceae	*Citrus ×aurantium*	Coleoptera	Nitidulidae	*Epuraea* sp.	?	?	Hand collection from rotten fruit under tree
-29.01	167.93	26/09/2013; 13/06/2013	Rutaceae	*Citrus ×aurantium*	Coleoptera	Nitidulidae	*Epuraea* sp.	?	?	Hand collection from rotting fruit, *Drosophila* observed
-29.04	167.99	26/05/2014	Rutaceae	*Citrus reticulata*	Coleoptera	Nitidulidae	*Epuraea* sp.	?	?	Hand collection from fallen fruit
-29.01	167.94	23/09/2013	Rutaceae	*Citrus ×limon*	Coleoptera	Nitidulidae	*Epuraea* sp.	?	?	Hand collection
-29.03	167.94	26/05/2014	NA	NA	Coleoptera	Nitidulidae	*Epuraea* sp.	?	?	Light trap Set 25.5.2014, collected 26.5.2014
-29.01	167.93	3/12/2014; 02/12/2014	NA	NA	Coleoptera	Nitidulidae	*Epuraea* sp.	?	?	Light trap in eucalypt fores
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Nitidulidae	*Epuraea* sp.	?	?	Light trap #3
-29.03	167.96	19/02/2014	NA	NA	Lepidoptera	Geometridae	*Epyaxa sodaliata* Walker, 1862	N	N	Light trap
-29.05	167.92	19/05/2014	NA	NA	Lepidoptera	Geometridae	*Epyaxa sodaliata*	N	N	Light trap
-29.04	167.95	8/10/2014	Asparagaceae	*Cordyline obtecta*	Araneae	Araneidae	*Eriophora pustulosa* (Walckenaer, 1842)	Y	Y	Beating
-29.03	167.94	10/10/2014	Proteaceae	*Macadamia integrifolia*	Diptera	Syrphidae	*Eristalis tenax* (Linnaeus, 1758)	Y	Y	Sweep net
-29.03	167.95	22/09/2013	NA	NA	Diptera	Syrphidae	*Eristalis tenax*	Y	Y	Hand collection
-29.05	167.94	15/12/2014	Unknown	Unknown	Diptera	Syrphidae	*Eristalis tenax*	Y	Y	Unknown
-29.03	167.98	21/05/2014	Poaceae	*Cenchrus purpureus*	Diptera	Syrphidae	*Eristalis tenax*	Y	Y	Sweep net
-29.04	167.99	27/11/2014	Rosaceae	*Prunus persica* var. *nucipersica*	Trombidiformes	Stigmaeidae	*Eryngopus nelsonensis* Wood, 1971	Y	N	Ethanol wash
-29.03	167.97	22/05/2014	Araucariaceae	*Araucaria heterophylla*	Dermaptera	Anisolabididae	*Euborellia annulipes* (Lucas, 1847)	Y	Y	Hand collection from sawn timber

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/[a])	Mainland Australia (Y/N/[a])	Collection method
-29.02	167.97	22/09/2013	Araceae	*Colocasia esculenta* (L.) Schott	Dermaptera	Anisolabididae	*Euborellia annulipes*	Y	Y	Hand collection
-29.02	167.96	10/06/2013	Anacardiaceae	*Mangifera indica*	Dermaptera	Anisolabididae	*Euborellia annulipes*	Y	Y	Hand collection
-29.04	167.99	25/09/2013	NA	NA	Dermaptera	Anisolabididae	*Euborellia annulipes*	Y	Y	Hand collection
-29.04	167.94	23/09/2013	NA	NA	Dermaptera	Anisolabididae	*Euborellia annulipes*	Y	Y	Hand collection
-29.06	167.96	25/05/2014	Unknown	Unknown	Dermaptera	Anisolabididae	*Euborellia annulipes*	Y	Y	Hand collection from logs
-29.02	167.93	25/02/2014	Araucariaceae	*Araucaria heterophylla*	Dermaptera	Anisolabididae	*Euborellia annulipes*	Y	Y	Hand collection under bark of billets
-29.03	167.99	21/02/2014	Myrtaceae	*Acca sellowiana*	Hemiptera	Coccidae	*Eucalymnatus tessellatus* (Signoret, 1873)	N	Y	Hand collection
-29.03	167.93	26/09/2013	Rutaceae	*Citrus ×aurantium*	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N	Y	Hand collection
-29.00	167.93	12/06/2013	Rutaceae	*Citrus ×aurantium*	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N	Y	Hand collection
-29.04	167.99	14/06/2013	Rutaceae	*Citrus ×aurantium*	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N	Y	Hand collection
-29.00	167.94	24/09/2013	Rutaceae	*Citrus ×aurantium*	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N	Y	Hand collection
-29.01	167.94	23/09/2013	Rutaceae	*Citrus ×limon*	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N	Y	Hand collection
-29.05	167.93	27/09/2013	Rutaceae	*Citrus* sp.	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N	Y	Hand collection
-29.03	167.94	10/10/2014	Rutaceae	*Citrus* sp.	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N	Y	Hand collection
-29.03	167.93	12/06/2013	Rutaceae	*Citrus* sp.	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N	Y	Hand collection
-29.01	167.93	26/09/2013	Rutaceae	*Citrus* sp.	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N	Y	Hand collection
-29.03	167.94	23/09/2013	Asparagaceae	*Cordyline obtecta*	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N	Y	Hand collection
-29.02	167.93	26/09/2013	Malvaceae	*Hibiscus insularis*	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N	Y	Hand collection
-29.04	167.99	25/09/2013	Malvaceae	*Lagunaria patersonia*	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N	Y	Hand collection
-29.03	167.94	11/06/2013	Malvaceae	*Lagunaria patersonia*	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N	Y	Hand collection
-29.03	167.99	14/06/2013	Malvaceae	*Lagunaria patersonia*	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N	Y	Hand collection
-29.01	167.95	25/02/2014; 23/09/2013	Malvaceae	*Lagunaria patersonia*	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N	Y	Hand collection
-29.12	167.95	14/10/2014	Malvaceae	*Lagunaria patersonia*	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N		Hand collection
-29.12	167.95	14/10/2014	Malvaceae	*Lagunaria patersonia*	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N	Y	Hand collection and beating
-29.03	167.93	26/09/2013	Anacardiaceae	*Mangifera indica*	Hemiptera	Coccidae	*Eucalymnatus tessellatus*	N	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.93	13/06/2013	Anacardiaceae	*Mangifera indica*	Hemiptera	Coccidae	*Eucalymmatus tessellatus*	N	Y	Observation
-29.01	167.93	24/09/2013	Anacardiaceae	*Mangifera indica*	Hemiptera	Coccidae	*Eucalymmatus tessellatus*	N	Y	Hand collection
-29.04	167.94	23/09/2013	Araliaceae	*Meryta angustifolia*	Hemiptera	Coccidae	*Eucalymmatus tessellatus*	N	Y	Hand collection
-29.03	167.95	25/09/2013	Araliaceae	*Meryta latifolia*	Hemiptera	Coccidae	*Eucalymmatus tessellatus*	N	Y	Hand collection
-29.03	167.93	26/09/2013	Musaceae	*Musa* sp.	Hemiptera	Coccidae	*Eucalymmatus tessellatus*	N	Y	Hand collection
-29.01	167.95	23/09/2013	Scrophulariaceae	*Myoporum obscurum*	Hemiptera	Coccidae	*Eucalymmatus tessellatus*	N	Y	Observation
-29.01	167.95	23/09/2013	Primulaceae	*Myrsine ralstoniae*	Hemiptera	Coccidae	*Eucalymmatus tessellatus*	N	Y	Observation
-29.04	167.99	14/06/2013	Myrtaceae	*Psidium guajava*	Hemiptera	Coccidae	*Eucalymmatus tessellatus*	N	Y	Hand collection
-29.04	167.94	23/09/2013	Anacardiaceae	*Schinus terebinthifolius*	Hemiptera	Coccidae	*Eucalymmatus tessellatus*	N	Y	Hand collection
-29.05	167.93	17/02/2014	Unknown	Unknown	Hemiptera	Coccidae	*Eucalymmatus tessellatus*	N	Y	Hand collection
-29.02	167.96	10/06/2013	Araliaceae	*Meryta angustifolia*	Hemiptera	Coccidae	*Eucalymmatus tessellatus*	N	Y	Hand collection
-29.06	167.94	11/10/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Eupodidae	*Eupodes* Koch, 1835	Y	?	Beating
-29.06	167.94	26/11/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Ethanol wash
-29.05	167.92	25/11/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Ethanol wash
-29.02	167.93	27/11/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Ethanol wash
-29.00	167.93	26/11/2014	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Ethanol wash
-29.00	167.93	24/09/2013	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Hand collection
-29.05	167.93	27/09/2013	Rutaceae	*Citrus* sp.	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Hand collection
-29.01	167.93	26/09/2013	Rutaceae	*Citrus* sp.	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Hand collection
-29.05	167.92	7/10/2014	Asparagaceae	*Cordyline obtecta*	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Beating
-29.03	167.99	24/12/2012	Cucurbitaceae	*Cucurbita pepo*	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Yellow pan in bare soil beside cucurbits
-29.05	167.92	7/10/2014	Convolvulaceae	*Ipomoea cairica*	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Beating
-29.04	167.96	26/02/2014	Myrtaceae	*Leptospermum* J.R.Forst. & G.Forst.	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Beating
-29.01	167.93	13/06/2013	Proteaceae	*Macadamia integrifolia*	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Beating
-29.05	167.94	22/09/2013	Anacardiaceae	*Mangifera indica*	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Hand collection
-29.04	167.99	23/05/2014	Moraceae	*Morus* sp.	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.96	10/10/2014	Musaceae	*Musa* sp.	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Beating
-29.00	167.93	12/06/2013	Musaceae	*Musa* sp.	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Hand collection
-29.02	167.97	22/09/2013	NA	NA	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Hand collection from soil
-29.03	167.92	22/05/2014	Passifloraceae	*Passiflora edulis* f. *flavicarpa*	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Beating
-29.01	167.92	16/10/2014	Myrtaceae	*Psidium cattleyanum* var. *cattleyanum*	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Hand collection
-29.06	167.94	11/10/2014	Combretaceae	*Terminalia catappa*	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Beating
-29.04	167.95	24/11/2014	Unknown	Unknown	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Ethanol wash
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Berlese funnel from leaf litter under palms
-29.05	167.96	9/10/2014	Vitaceae	*Vitis vinifera*	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Beating
-29.03	167.92	22/05/2014	Vitaceae	*Vitis vinifera*	Trombidiformes	Eupodidae	*Eupodes* sp.	Y	?	Beating from grape vine growing over citrus
-29.03	167.95	21/09/2013	NA	NA	Araneae	Salticidae	*Europhrys* cf. *terrestris*	Y	N	Hand collection
-29.01	167.92	16/10/2014	NA	NA	Coleoptera	Brentidae	*Euschizus internatus* (Pascoe, 1872)	N	Y	Light trap
-29.03	167.96	25/09/2013	NA	NA	Coleoptera	Brentidae	*Euschizus internatus*	N	Y	Hand collection from timber
-29.03	167.97	21/05/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Brentidae	*Euschizus internatus*	N	Y	Hand collection from milled timber
-29.05	167.95	20/02/2014	NA	NA	Coleoptera	Carabidae	*Euthenarus bicolor* Moore, 1985	N	Y	Light trap #2
-29.03	167.99	22 - 23/03/2014	Various		Diptera	Stratiomyidae	*Exaireta spinigera* (Wiedemann, 1830)	Y	Y	Yellow pan among various vegetables
-29.00	167.93	24/10/2013	Various		Diptera	Stratiomyidae	*Exaireta spinigera*	Y	Y	Yellow pan among various young vegetables
-29.02	167.96	26/03/2014	Various		Diptera	Stratiomyidae	*Exaireta spinigera*	Y	Y	Yellow pan in orchard
-29.04	167.99	23/05/2014	Rutaceae	*Citrus* sp.	Diptera	Stratiomyidae	*Exaireta spinigera*	Y	Y	Sweep net
-29.03	167.96	25/05/2014	NA	NA	Diptera	Stratiomyidae	*Exaireta spinigera*	Y	Y	Light trap
-29.05	167.95	20/02/2014	NA	NA	Diptera	Stratiomyidae	*Exaireta spinigera*	Y	Y	Light trap #2
-29.04	167.94	23/09/2013	Anacardiaceae	*Schinus terebinthifolius*	Diptera	Stratiomyidae	*Exaireta spinigera*	Y	Y	Sweep net
-29.04	167.99	26/05/2014	Unknown	Unknown	Diptera	Stratiomyidae	*Exaireta spinigera*	Y	Y	Sweep net
-29.04	167.96	27/02/2014	Various		Diptera	Stratiomyidae	*Exaireta spinigera*	Y	Y	Yellow pan among various young vegetables

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.93	26/12/2012	Various, Apiaceae, Brassicaceae	*Apium graveolens*	Hemiptera	Cicadellidae	*Exitianus plebeius* (Kirkaldy, 1906)	N	Y	Yellow pan near bananas
-29.01	167.93	21/05/2014	Poaceae	Unknown	Hemiptera	Cicadellidae	*Exitianus*? sp.	?	?	Sweep net in cattle pasture
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Coleoptera	Curculionidae	*Exomesites* Broun, 1886	Y	?	Berlese funnel form leaf litter under palms
-29.02	167.96	13/10/2014	Araucariaceae	*Araucaria heterophylla*	Stylommatophora	Microcystidae	*Fanulena insculpta* (Pfeiffer, 1846)	N	N	Hand collection from tree felled 10 months prior
-29.01	167.93	26/09/2013	Arecaceae	*Howea belmoreana*, *Howea forsteriana*	Hemiptera	Diaspididae	*Fiorinia fioriniae* (Targioni, 1867)	N	Y	Hand collection
-29.04	167.94	23/09/2013	Lauraceae	*Persea americana*	Hemiptera	Diaspididae	*Fiorinia fioriniae*	N	Y	Hand collection
-29.01	167.93	13/06/2013	Lauraceae	*Persea americana*	Hemiptera	Diaspididae	*Fiorinia fioriniae*	N	Y	Hand collection
-29.02	167.93	27/09/2013	Arecaceae	*Rhopalostylis baueri*	Hemiptera	Diaspididae	*Fiorinia fioriniae*	N	Y	Hand collection
-29.04	167.99	25/09/2013	Arecaceae	*Howea belmoreana*, *Howea forsteriana*	Hemiptera	Diaspididae	*Fiorinia fioriniae*	N	Y	Hand collection
-29.04	167.99	23/11/2014; 29/11/2014	Fabaceae	*Arachis pintoi*	Thysanoptera	Thripidae	*Frankliniella schultzei* (Trybom, 1910)	Y	Y	Hand collection
-29.04	167.99	22/05/2014	Malvaceae	*Hibiscus* sp.	Thysanoptera	Thripidae	*Frankliniella schultzei*	Y	Y	Beating
-29.04	167.99	29/11/2014	Malvaceae	*Hibiscus* sp.	Thysanoptera	Thripidae	*Frankliniella schultzei*	Y	Y	Hand collection from flower petal
-29.04	167.99	27/11/2014	Malvaceae	*Hibiscus* sp.	Thysanoptera	Thripidae	*Frankliniella schultzei*	Y	Y	Hand collection from flowers
-29.04	167.99	29/11/2014	Malvaceae	*Hibiscus* sp.	Thysanoptera	Thripidae	*Frankliniella schultzei*	Y	Y	Hand collection from flower petal
-29.03	167.94	28/11/2014	Asteraceae	*Hieracium* L.	Thysanoptera	Thripidae	*Frankliniella schultzei*	Y	Y	Hand collection from flowers
-29.05	167.93	17/02/2014	Convolvulaceae	*Ipomoea cairica*	Thysanoptera	Thripidae	*Frankliniella schultzei*	Y	Y	Hand collection
-29.05	167.97	27/11/2014	Convolvulaceae	*Ipomoea cairica*	Thysanoptera	Thripidae	*Frankliniella schultzei*	Y	Y	Hand collection from flowers
-29.04	167.99	25/11/2014; 27/11/2014	Convolvulaceae	*Ipomoea cairica*	Thysanoptera	Thripidae	*Frankliniella schultzei*	Y	Y	Hand collection from flowers
-29.05	167.92	23/05/2014	Convolvulaceae	*Ipomoea cairica*	Thysanoptera	Thripidae	*Frankliniella schultzei*	Y	Y	Beating
-29.04	167.99	23/11/2014	Bignoniaceae	*Jacaranda* Juss.	Thysanoptera	Thripidae	*Frankliniella schultzei*	Y	Y	Hand collection from flowers
-29.04	167.99	29/11/2014	Liliaceae	*Lilium formosanum* A.Wallace	Thysanoptera	Thripidae	*Frankliniella schultzei*	Y	Y	Hand collection from flowers
-29.05	167.96	28/05/2014	NA	NA	Thysanoptera	Thripidae	*Frankliniella schultzei*	Y	Y	LuciLure trap
-29.03	167.94	23/05/2014	Strelitziaceae	*Strelitzia reginae* Banks ex Aiton	Thysanoptera	Thripidae	*Frankliniella schultzei*	Y	Y	Beating
-29.03	167.94	28/11/2014	Fabaceae	*Arachis pintoi*	Thysanoptera	Thripidae	*Frankliniella schultzei*	Y	Y	Hand collection from flowers
-29.03	167.93	27/11/2014	Araceae	*Colocasia esculenta*	Mesostigmata	Laelapidae	*Gaeolaelaps queenslandicus* (Womersley, 1956)	Y	Y	Ethanol wash

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.93	20/05/2014	Poaceae	*Paspalum* sp.	Sarcoptiformes	Galumnidae	*Galumna*?	Y	?	Sweep net in eucalypt forest
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Mesostigmata	Ologamasidae	*Gamasiphis* Berlese, 1904	Y	?	Berlese funnel from leaf litter under palms
-29.04	167.99	24/11/2014	Musaceae	*Musa* sp.	Araneae	Araneidae	*Gasteracantha* Sundevall, 1833	Y	?	Ethanol wash
-29.06	167.94	22/09/2013	Various		Diptera	Chloropidae	*Gaurax* Loew, 1863	Y	?	Sweep net
-29.04	167.99	23 - 24/03/2014	Various		Diptera	Chloropidae	*Gaurax* sp.	Y	?	Yellow pan among various vegetables
-29.03	167.98	29/05/2014; 17/07/2014	NA		Diptera	Chloropidae	*Gaurax* sp.	Y	?	LuciLure trap
-29.03	167.99	23/10/2013	Various		Diptera	Chloropidae	*Gaurax* sp.	Y	?	Yellow pan among various young vegetables
-29.03	167.99	22 - 23/03/2014; 23/10/2013	Various		Diptera	Chloropidae	*Gaurax* sp.	Y	?	Yellow pan among various vegetables
-29.00	167.93	23 - 24/03/2014; 24/10/2013	Various		Diptera	Chloropidae	*Gaurax* sp.	Y	?	Yellow pan among various vegetables
-29.02	167.95	25/12/2012	Apocynaceae	*Alyxia gynopogon*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Beating
-29.03	167.93	12/06/2013	Bromeliaceae	*Ananas comosus*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Sweep net
-29.00	167.93	26/12/2012	Various, Apiaceae, Brassicaceae	*Apium graveolens*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Yellow pan near bananas
-29.05	167.94	22/09/2013	Brassicaceae	*Brassica oleracea* var. *capitata*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Hand collection
-29.00	167.93	24/12/2012	Caricaceae	*Carica papaya*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Yellow pan
-29.05	167.96	9/10/2014	Rutaceae	*Citrus* sp.	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Beating
-29.03	167.99	14/06/2013	Cucurbitaceae	*Cucumis sativus*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Hand collection
-29.00	167.93	24/09/2013	Cucurbitaceae	*Cucurbita maxima*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Sweep net
-29.00	167.93	20/02/2014	Cucurbitaceae	*Cucurbita pepo*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Hand collection
-29.03	167.99	24/12/2012	Cucurbitaceae	*Cucurbita pepo*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Yellow pan on bare soil beside curcubits
-29.03	167.98	25/09/2013	Apiaceae	*Daucus carota*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Sweep net
-29.03	167.94	10/10/2014	Poaceae	*Digitaria* sp.	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Sweep net
-29.01	167.95	25/12/2012	Iridaceae	*Gladiolus* ×*hortulanus* L.H.Bailey	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Yellow pan
-29.03	167.99	21/02/2014	Fabaceae	*Glycine max*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Hand collection
-29.03	167.98	22/05/2014	Convolvulaceae	*Ipomoea batatas*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Beating
-29.03	167.99	14/06/2013	Convolvulaceae	*Ipomoea batatas*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Sweep net

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.93	20/02/2014	Convolvulaceae	*Ipomoea batatas*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Hand collection
-29.00	167.93	23/10/2013	Asteraceae, Chenopodiaceae	*Lactuca sativa*, *Beta vulgaris* L.	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Beating in lettuce flowers, beetroot leaves
-29.05	167.93	13/06/2013	Fabaceae	*Medicago sativa*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Sweep net
-29.03	167.99	24/12/2012	Musaceae	*Musa* sp.	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Yellow pan
-29.00	167.93	26/12/2012	Musaceae, Asteraceae	*Musa* sp., *Lactuca sativa*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Yellow pan
-29.06	167.96	12/06/2014; 24/06/2014	NA	NA	Diptera	Chloropidae	*Gaurax* sp.	Y	?	LuciLure trap
-29.01	167.92	16/10/2014	NA	NA	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Light trap
-29.01	167.95	25/12/2012	Lomariopsidaceae	*Nephrolepis* sp.	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Yellow pan
-29.00	167.93	26/12/2012	Lamiaceae, Brassicaceae, Musaceae	*Ocimum basilicum*, *Musa* sp.	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Yellow pan
-29.01	167.93	20/05/2014	Poaceae	*Paspalum* sp.	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Sweep net in eucalyptus fores
-29.03	167.99	20/02/2014	Fabaceae	*Phaseolus vulgaris*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Hand collection
-29.03	167.98	21/05/2014	Fabaceae	*Phaseolus vulgaris*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Beating
-29.00	167.93	24/09/2013	Fabaceae	*Phaseolus vulgaris*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Hand collection
-29.03	167.98	25/09/2013	Fabaceae	*Phaseolus vulgaris*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Hand collection
-29.12	167.95	14/10/2014	Agavaceae	*Phormium tenax*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Sweep net and beating
-29.057236	167.938334	11/10/2014	Rosaceae	*Prunus persica* var. *persica*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Beating
-29.03	167.99	20/02/2014	Polygonaceae, Asteraceae	*Rheum rhabadarum*, *Bidens pilosa*	Diptera	Chloropidae	*Gaurax* sp.			Sweep net
-29.03	167.92	21/05/2014	Solanaceae	*Solanum lycopersicum*	Diptera	Chloropidae	*Gaurax* sp.			Beating
-29.03	167.98	21/05/2014	Solanaceae	*Solanum lycopersicum*	Diptera	Chloropidae	*Gaurax* sp.			Beating
-29.03	167.99	23/12/2012	Solanaceae	*Solanum lycopersicum*	Diptera	Chloropidae	*Gaurax* sp.			Yellow pan
-29.01	167.92	16/10/2014	Solanaceae	*Solanum lycopersicum*	Diptera	Chloropidae	*Gaurax* sp.			Hand collection
-29.06	167.94	11/10/2014	Solanaceae	*Solanum lycopersicum*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Beating
-29.01	167.93	21/05/2014	Solanaceae	*Solanum mauritianum*	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Beating in eucalyptus forest

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Diptera	Chloropidae	*Gaurax* sp.			Yellow pan
-29.04	167.99	25/05/2014	Solanaceae	*Solanum tuberosum*	Diptera	Chloropidae	*Gaurax* sp.			Beating
-29.03	167.92	21/05/2014	Solanaceae	*Solanum tuberosum*	Diptera	Chloropidae	*Gaurax* sp.			Beating
-29.01	167.93	13/06/2013	Solanaceae	*Solanum tuberosum*	Diptera	Chloropidae	*Gaurax* sp.			Hand collection
-29.03	167.99	21/02/2014	Poaceae	*Triticum* sp.	Diptera	Chloropidae	*Gaurax* sp.			Hand collection
-29.01	167.92	21/05/2014	Poaceae	Unknown	Diptera	Chloropidae	*Gaurax* sp.	Y	?	Sweep net in cattle pasture
-29.03	167.99	24/12/2012	Poaceae	*Zea mays*	Diptera	Chloropidae	*Gaurax* sp.			Yellow pan
-29.12	167.95	14/10/2014	Gekkonidae	*Christinus guentheri* (Boulenger, 1885)	Trombidiformes	Pterygosomidae	*Geckobia* Mégnin, 1878	Y	?	Hand collection
-29.02	167.95	24/12/2013	Celastraceae	*Elaeodendron curtipendulum*	Thysanoptera	Phlaeothripidae	*Giraultithrips nigricoxa* (Girault, 1929)	Y	Y	Hand collection from lichens
-29.06	167.94	26/11/2014	NA	NA	Hemiptera	Pentatomidae	*Glaucias amyoti* (Dallas, 1852)	N	Y	Light trap
-29.05	167.93	26/11/2014	NA	NA	Hemiptera	Pentatomidae	*Glaucias amyoti*	N	Y	Light trap
-29.03	167.95	7/10/2014	NA	NA	Hemiptera	Pentatomidae	*Glaucias amyoti*	N	Y	Light trap
-29.01	167.92	16/10/2014	NA	NA	Hemiptera	Pentatomidae	*Glaucias amyoti*	N	Y	Light trap
-29.03	167.96	23/02/2014	NA	NA	Hemiptera	Pentatomidae	*Glaucias amyoti*	N	Y	Light trap #4
-29.04	167.99	25/11/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Pentatomidae	*Glaucias amyoti*	N	Y	Hand collection
-29.00	167.93	20/02/2014	Rutaceae	*Citrus* ×*aurantium*	Hemiptera	Pentatomidae	*Glaucias amyoti*	N	Y	Hand collection
-29.03	167.96	26/02/2014	Myrtaceae	*Eucalyptus botryoides*	Hemiptera	Psyllidae	*Glycaspis* Taylor, 1960	Y	Y	Hand collection
-29.03	167.96	26/11/2014	Myrtaceae	*Eucalyptus botryoides*	Hemiptera	Psyllidae	*Glycaspis granulata* (Froggatt, 1901)	Y	Y	Hand collection
-29.03	167.96	20/02/2014	NA	NA	Blattodea	Kalotermitidae	*Glyptotermes brevicornis* Froggatt, 1897	N	Y	Light trap, alates caught
-29.05	167.94	22/09/2013	Oleaceae	*Olea europaea* subsp. *cuspidata*	Blattodea	Kalotermitidae	*Glyptotermes brevicornis*	N	Y	Hand collection
-29.05	167.92	24/09/2013	Araucariaceae	*Araucaria heterophylla*	Blattodea	Kalotermitidae	*Glyptotermes brevicornis*	N	Y	Hand collection
-29.03	167.95	25/02/2014	NA	NA	Coleoptera	Tenebrionidae	*Gnatocerus cornutus* (Fabricius, 1798)	N	Y	Hand collection
-29.06	167.95	27/09/2013	NA	NA	Coleoptera	Tenebrionidae	*Gonocephalum insulanum* (Olliff, 1888)	N	N	Hand collection from soil
-29.06	167.96	25/05/2014	NA	NA	Coleoptera	Tenebrionidae	*Gonocephalum insulanum*	N	N	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.02	167.96	10/06/2013	Fabaceae	*Phaseolus vulgaris*	Diptera	Chyromyidae	*Gymnochiromyia nigridorsum* (Malloch, 1925)	Y	Y	Hand collection
-29.05	167.92	26/11/2014	Malvaceae	*Lagunaria patersonia*	Mesostigmata	Phytoseiidae	*Gynaeseius christinae* (Schicha, 1981)	Y	Y	Ethanol wash
-29.05	167.92	25/11/2014	Araucariaceae	*Araucaria heterophylla*	Mesostigmata	Phytoseiidae	*Gynaeseius christinae*	Y	Y	Ethanol wash
-29.03	167.97	27/11/2014	NA	NA	Coleoptera	Ptinidae	*Hadrobregmus australiensis* Pic, 1901	Y	Y	Light trap
Unknown	Unknown	1/10/2013	Bovidae	*Bos taurus* Linnaeus, 1758	Ixodida	Ixodidae	*Haemaphysalis longicornis* Neumann, 1901	N	Y	Hand collection
Unknown	Unknown	27/06/2014	Piperaceae	*Macropiper excelsum* subsp. *psittacorum* (Endl.) Sykes	Ixodida	Ixodidae	*Haemaphysalis longicornis*	N	Y	Unknown
Unknown	Unknown	20/02/2014	Unknown	Unknown	Ixodida	Ixodidae	*Haemaphysalis longicornis*	N	Y	Hand collection
Unknown	Unknown	14/09/2013	Bovidae	*Bos taurus*	Ixodida	Ixodidae	*Haemaphysalis longicornis*	N	Y	Hand collection
Unknown	Unknown	20/02/2014	Suidae	*Sus scrofa* Linnaeus, 1758	Psocodea	Haematopinidae	*Haematopinus suis* (Linnaeus, 1758)	Y	Y	Hand collection
-29.03	167.56	10/12/2014	Procellariidae	*Ardenna pacifica* (Gmelin, 1789)	Phthiraptera	Philopteridae	*Halipeurus mirabilis* Thompson, 1940	N	Y	Hand collection
-29.04	167.99	23/11/2014	Malvaceae	*Hibiscus insularis*	Thysanoptera	Phlaeothripidae	*Haplothrips avius* Mound & Minaei, 2007	Y	Y	Hand collection from dead wood, dead seed heads
-29.04	167.99	25/11/2014	Arecaceae, Fabaceae, Araceae		Thysanoptera	Phlaeothripidae	*Haplothrips bituberculatus* (Girault, 1927)	Y	Y	Hand collection from dead palm leaves and dead pea pods
-29.01	167.94	22/12/2012	Fabaceae	*Crotalaria* L.	Thysanoptera	Phlaeothripidae	*Haplothrips bituberculatus*	Y	Y	Hand collection from flowers
-29.02	167.96	25/03/2014	Phormiaceae	*Dianella* sp.	Thysanoptera	Phlaeothripidae	*Haplothrips bituberculatus*	Y	Y	Hand collection
-29.03	167.95	10/07/2013	Sapindaceae	*Dodonaea viscosa* subsp. *viscosa*	Thysanoptera	Phlaeothripidae	*Haplothrips bituberculatus*	Y	Y	Hand collection
-29.02	167.96	27/12/2012	Myrtaceae	*Metrosideros* Banks ex Gaertn.	Thysanoptera	Phlaeothripidae	*Haplothrips bituberculatus*	Y	Y	Hand collection from leaves
-29.02	167.96	25/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Haplothrips bituberculatus*	Y	Y	Hand collection from dead wood
-29.01	167.94	24/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Haplothrips bituberculatus*	Y	Y	Hand collection from dead wood
-29.02	167.96	9/07/2013	Various		Thysanoptera	Phlaeothripidae	*Haplothrips bituberculatus*	Y	Y	Hand collection
-29.00	167.93	22/12/2013	Various		Thysanoptera	Phlaeothripidae	*Haplothrips govdeyi* (Franklin, 1908)	Y	Y	Hand collection
-29.13	167.95	14/10/2014	Amaranthaceae	*Achyranthes aspera*	Thysanoptera	Phlaeothripidae	*Haplothrips govdeyi*	Y	Y	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.97	25/03/2014	Asteraceae	*Ambrosia* L.?	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.01	167.95	26/12/2013	Araucariaceae, Poaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from dead wood and grass
-29.03	167.99	22/12/2013	Asteraceae	*Bidens pilosa*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.04	167.98	24/11/2014	Asteraceae	*Bidens pilosa*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.03	167.94	28/11/2014	Asteraceae	*Bidens pilosa*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.03	167.99	21/12/2013; 22/10/2013	Asteraceae	*Bidens pilosa*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.02	167.95	22/11/2014	Asteraceae	*Bidens pilosa*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.03	167.99	21/12/2013	Brassicaceae, Solanaceae	*Brassica oleracea* var. *italica*, *Brassica oleracea* var. *botrytis* L., *Capsicum annuum*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.00	167.93	24/12/2012	Brassicaceae	*Capsella bursa-pastoris* (L.) Medik.?	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.03	167.99	23/10/2013	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.03	167.99	22/03/2014	Poaceae	*Cenchrus purpureus*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.04	167.98	24/11/2014	Chenopodiaceae	*Chenopodium* sp.	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.03	167.99	21/12/2013; 22/03/2014; 22/12/2012	Chenopodiaceae	*Chenopodium* sp.	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.04	167.99	24/03/2014	Rutaceae	*Citrus* sp.	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from young citrus leaves and grass
-29.03	167.99	23/12/2012	Rubiaceae	*Coffea* sp.	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.05	167.97	24/02/2014	Asteraceae	*Conyza* sp.	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.02	167.96	26/09/2013	Apiaceae	*Coriandrum sativum* L.	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.00	167.93	23/03/2014	Cucurbitaceae, Solanaceae, Alliaceae, Chenopodiaceae, Poaceae,	*Cucurbita* L., *Solanum lycopersicum*, *Allium porrum* L., *Chenopodium* sp., *Digitaria*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.04	167.97	25/03/2014	Lythraceae	*Cuphea* P.Browne	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	22/12/2013	Poaceae	*Cynodon dactylon* (L.) Pers.	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.02	167.96	25/12/2012	Poaceae	*Cynodon dactylon*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.02	167.96	25/03/2014	Apiaceae, Rosaceae	*Foeniculum vulgare* Mill., *Prunus persica* var. *persica*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from leaves
-29.03	167.99	22/03/2014	Asteraceae	*Galinsoga parviflora* Cav.	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.04	167.99	23/11/2014	Malvaceae	*Hibiscus insularis*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from dead wood and dead seed heads
-29.03	167.94	28/11/2014	Asteraceae	*Hieracium* sp.	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.02	167.96	25/11/2014	Asteraceae	*Hieracium* sp.	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.05	167.92	23/11/2014	Convolvulaceae	*Ipomoea cairica*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.05	167.93	23/11/2014	Convolvulaceae	*Ipomoea cairica*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.03	167.94	28/11/2014	Convolvulaceae	*Ipomoea cairica*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.03	167.99	22/10/2013	Asteraceae, Chenopodiaceae, Apiaceae, Solanaceae, Fabaceae, Cucurbitaceae	*Lactuca sativa*, *Spinacia oleracea* L., *Apium graveolens*, *Solanum lycopersicum*, *Phaseolus* sp., *Cucurbita pepo*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.05	167.97	21/02/2014	Verbenaceae	*Lantana camara*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Beating
-29.02	167.95	21/12/2012	Asteraceae	*Leucanthemum vulgare* Lam.	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.05	167.93	26/03/2014	Fabaceae	*Medicago sativa*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.04	167.99	23/11/2014	Fabaceae	*Medicago sativa*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.04	167.99	24/12/2013	Apiaceae	*Petroselinum crispum*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.04	167.94	21/12/2012	Apiaceae	*Petroselinum crispum*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.03	167.99	9/07/2013	Various, Solanaceae, Asteraceae	*Physalis* sp., *Bidens pilosa*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.04	167.96	26/03/2014	Fabaceae, Alliaceae, various	*Pisum sativum* L., *Allium cepa* var. *aggregatum* G.Don	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.05	167.93	23/12/2013	Plantaginaceae	*Plantago* L.	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.03	167.99	23/12/2012	Solanaceae	*Solanum lycopersicum*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Yellow pan
-29.03	167.99	22/12/2012	Solanaceae	*Solanum lycopersicum*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers, leaves
-29.02	167.96	10/06/2013	Solanaceae	*Solanum melongena*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.05	167.92	28/11/2014	Asteraceae	*Tagetes* L.	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.05	167.98	24/03/2014	Fabaceae	*Trifolium pratense* L.	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.02	167.96	23/10/2013	Fabaceae	*Trifolium repens* var. *repens*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.03	167.99	22/12/2012	Fabaceae	*Trifolium repens* var. *repens*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.04	167.99	23/11/2014	Fabaceae	*Trifolium* sp.	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.02	167.93	25/05/2014	Fabaceae	*Trifolium* sp.	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Beating
-29.03	167.99	24/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.02	167.96	25/03/2014	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.02	167.96	26/11/2014	Apiaceae	Unknown	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.03	167.99	22/03/2014	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from flowers
-29.02	167.95	10/07/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.00	167.93	24/12/2012	Poaceae	*Zea mays*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.03	167.99	21/12/2013	Poaceae	*Zea mays*	Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection from old male flowers
-29.01	167.92	25/11/2014	Asteraceae		Thysanoptera	Phlaeothripidae	*Haplothrips gowdeyi*	Y	Y	Hand collection
-29.05	167.93	23/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Haplothrips leucanthemi* (Schrank, 1781)	Y	Y	Hand collection
-29.05	167.93	26/03/2014	Fabaceae	*Medicago sativa*	Thysanoptera	Phlaeothripidae	*Haplothrips robustus* Bagnall, 1918	Y	Y	Hand collection
-29.04	167.94	21/12/2012	Verbenaceae, Anacardiaceae	*Lantana camara*, *Schinus terebinthifolius*	Thysanoptera	Phlaeothripidae	*Haplothrips robustus*	Y	Y	Hand collection
-29.00	167.93	23 - 24/03/2014	Various		Coleoptera	Coccinellidae	*Harmonia testudinaria* (Mulsant, 1850)	N	Y	Yellow pan
-29.03	167.95	21/09/2013	NA	NA	Hemiptera	Rhyparochromidae	*Hebrolethaeus concisus* Scudder, 1981	N	N	Hand collection from outside light
-29.03	167.98	14/06/2013	Solanaceae	*Solanum melongena*	Lepidoptera	Noctuidae	*Helicoverpa armigera* (Hübner, 1808)	N	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.93	13/06/2013	Poaceae	*Zea mays*	Lepidoptera	Noctuidae	*Helicoverpa armigera*	N	Y	Hand collection
-29.03	167.98	21/05/2014	Solanaceae	*Solanum lycopersicum*	Lepidoptera	Noctuidae	*Helicoverpa armigera*	N	Y	Beating
-29.06	167.94	27/02/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Thripidae	*Heliothrips haemorrhoidalis* (Bouché, 1833)	Y	Y	Hand collection
-29.01	167.94	21/03/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Thripidae	*Heliothrips haemorrhoidalis*	Y	Y	Hand collection from terminal branches
-29.03	167.93	12/06/2013	Rutaceae	*Citrus* sp.	Thysanoptera	Thripidae	*Heliothrips haemorrhoidalis*	Y	Y	Hand collection
-29.04	167.94	21/10/2013	Rubiaceae	*Coprosma* sp.	Thysanoptera	Thripidae	*Heliothrips haemorrhoidalis*	Y	Y	Hand collection
-29.01	167.94	11/07/2013	Asparagaceae	*Cordyline obtecta*	Thysanoptera	Thripidae	*Heliothrips haemorrhoidalis*	Y	Y	Hand collection from dead leaves
-29.04	167.94	21/12/2012	Euphorbiaceae	*Croton* L.	Thysanoptera	Thripidae	*Heliothrips haemorrhoidalis*	Y	Y	Hand collection from leaves
-29.03	167.95	10/07/2013	Sapindaceae	*Dodonaea viscosa* subsp. *viscosa*	Thysanoptera	Thripidae	*Heliothrips haemorrhoidalis*	Y	Y	Hand collection
-29.00	167.94	11/07/2013	Sapindaceae	*Dodonaea viscosa* subsp. *viscosa*	Thysanoptera	Thripidae	*Heliothrips haemorrhoidalis*	Y	Y	Hand collection
-29.04	167.97	26/05/2014	Rosaceae	*Fragaria ×ananassa*	Thysanoptera	Thripidae	*Heliothrips haemorrhoidalis*	Y	Y	Hand collection
-29.01	167.94	22/03/2014	Polygonaceae	*Muehlenbeckia australis*	Thysanoptera	Thripidae	*Heliothrips haemorrhoidalis*	Y	Y	Hand collection
-29.03	167.98	20/02/2014	Fagaceae	*Quercus* sp.	Thysanoptera	Thripidae	*Heliothrips haemorrhoidalis*	Y	Y	Beating
-29.01	167.94	30/11/2014	Unknown	Unknown	Thysanoptera	Thripidae	*Heliothrips haemorrhoidalis*	Y	Y	Hand collection
-29.02	167.95	22/11/2014	Unknown	Unknown	Thysanoptera	Thripidae	*Heliothrips haemorrhoidalis*	Y	Y	Hand collection from dead twigs and leaves
-29.04	167.99	25/05/2014	Annonaceae	*Annona reticulata*	Thysanoptera	Thripidae	*Heliothrips haemorrhoidalis*	Y	Y	Beating
-29.03	167.94	10/10/2014	Rutaceae	*Citrus* sp.	Thysanoptera	Thripidae	*Heliothrips haemorrhoidalis*	Y	Y	Hand collection from paddock
-29.03	167.96	25/05/2014	NA	NA	Lepidoptera	Crambidae	*Hellula undalis* (Fabricius, 1781)	N	Y	Light trap
-29.04	167.99	25/09/2013	Musaceae	*Musa* sp.	Hemiptera	Diaspididae	*Hemiberlesia cyanophylli* (Signoret, 1869)	Y	Y	Hand collection
-29.02	167.96	10/06/2013	Musaceae	*Musa* sp.	Hemiptera	Diaspididae	*Hemiberlesia cyanophylli*	Y	Y	Hand collection
-29.04	167.94	23/09/2013	Araliaceae	*Meryta angustifolia*	Hemiptera	Diaspididae	*Hemiberlesia cyanophylli*	Y	Y	Hand collection
-29.04	167.94	23/09/2013	Asparagaceae	*Cordyline obtecta*	Hemiptera	Diaspididae	*Hemiberlesia lataniae* (Signoret, 1869)	Y	Y	Hand collection
-29.02	167.96	10/06/2013	Araliaceae	*Meryta angustifolia*	Hemiptera	Diaspididae	*Hemiberlesia lataniae*	Y	Y	Hand collection
-29.03	167.95	22/05/2014	Araliaceae	*Meryta* J.R.Forst. & G.Forst.	Hemiptera	Diaspididae	*Hemiberlesia lataniae*	Y	Y	Hand collection
-29.05	167.94	22/09/2013	Musaceae	*Musa* sp.	Hemiptera	Diaspididae	*Hemiberlesia lataniae*	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.94	23/09/2013	Musaceae	*Musa* sp.	Hemiptera	Diaspididae	*Hemiberlesia lataniae*	Y	Y	Hand collection
-29.03	167.93	26/09/2013	Musaceae	*Musa* sp.	Hemiptera	Diaspididae	*Hemiberlesia lataniae*	Y	Y	Hand collection
-29.00	167.93	20/02/2014	Musaceae	*Musa* sp.	Hemiptera	Diaspididae	*Hemiberlesia lataniae*	Y	Y	Sweep net
-29.00	167.93	12/06/2013; 12/09/2013	Musaceae	*Musa* sp.	Hemiptera	Diaspididae	*Hemiberlesia lataniae*	Y	Y	Hand collection
-29.03	167.93	12/06/2013	Lauraceae	*Persea americana*	Hemiptera	Diaspididae	*Hemiberlesia lataniae*	Y	Y	Hand collection
-29.04	167.99	14/06/2013	Rosaceae	*Prunus dulcis*	Hemiptera	Diaspididae	*Hemiberlesia lataniae*	Y	Y	Hand collection
-29.04	167.99	25/09/2013	Rosaceae	*Prunus persica* var. *persica*	Hemiptera	Diaspididae	*Hemiberlesia lataniae*	Y	Y	Hand collection
-29.02	167.96	10/06/2013	Arecaceae	*Rhopalostylis baueri*	Hemiptera	Diaspididae	*Hemiberlesia lataniae*	Y	Y	Hand collection
-29.01	167.94	23/09/2013	Arecaceae	*Rhopalostylis baueri*	Hemiptera	Diaspididae	*Hemiberlesia lataniae*	Y	Y	Hand collection
-29.04	167.99	14/06/2013	Vitaceae	*Vitis vinifera*	Hemiptera	Diaspididae	*Hemiberlesia lataniae*	Y	Y	Hand collection
-29.01	167.93	13/06/2013	Annonaceae	*Annona muricata*	Hemiptera	Diaspididae	*Hemiberlesia lataniae*	Y	Y	Hand collection
-29.00	167.93	12/06/2013; 24/09/2013	Musaceae	*Musa* sp.	Hemiptera	Diaspididae	*Hemiberlesia rapax* (Comstock, 1881)	Y	Y	Hand collection
-29.03	167.97	20/02/2014	NA	NA	Odonata	Cordulliidae	*Hemicordulia australiae* (Rambur, 1842)	N	Y	Light trap #3
-29.04	167.96	10/10/2014	NA	NA	Odonata	Cordulliidae	*Hemicordulia australiae*	N	Y	Sweep net caught on the wing
-29.04	167.99	25/11/2014	Arecaceae, Fabaceae, Araceae		Thysanoptera	Thripidae	*Hercinothrips bicinctus* (Bagnall, 1919)	Y	Y	Hand collection from dead palm leaves and dead pea pods
-29.03	167.99	24/12/2012	Alliaceae	*Allium porrum*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.04	167.97	26/11/2014	Asparagaceae	*Asparagus officinalis* L.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.02	167.96	27/12/2012	Asparagaceae	*Asparagus* L.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.03	167.99	21/12/2013	Asteraceae	*Bidens pilosa*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.03	167.99	24/12/2012	Brassicaceae	*Brassica oleracea* var. *capitata*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from seedlings
-29.05	167.97	13/06/2013	Solanaceae	*Capsicum annuum*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.06	167.94	11/10/2014	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Sweep net
-29.03	167.99	23/10/2013	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.02	167.95	23/12/2012	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	22/12/2012	Chenopodiaceae	*Chenopodium* sp.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.03	167.98	20/02/2014	Rubiaceae	*Coffea arabica*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Beating
-29.01	167.93	16/10/2014	Rubiaceae	*Coffea arabica*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.03	167.99	21/12/2013	Rubiaceae	*Coffea* sp.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.03	167.98	25/09/2013	Rubiaceae	*Coffea* sp.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.01	167.93	26/09/2013	Rubiaceae	*Coffea* sp.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.02	167.97	22/09/2013	Araceae	*Colocasia esculenta*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.05	167.93	23/11/2014; 25/03/2014	Commelinaceae	*Commelina cyanea*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.00	167.94	23/10/2013	Commelinaceae	*Commelina cyanea*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.05	167.93	23/11/2014	Commelinaceae	*Commelina cyanea*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from leaves
-29.05	167.93	23/11/2014	Commelinaceae	*Commelina cyanea*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from leaves
-29.02	167.95	26/12/2013 22/11/2014	Amaryllidaceae	*Crinum* L.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from leaves
-29.02	167.97	22/12/2012	Cyatheaceae, Convolvulaceae	*Cyathea brownii*, *Ipomoea* L.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.00	167.93	10/07/2013	Apiaceae	*Daucus carota*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.00	167.94	11/07/2013; 24/12/2013	Euphorbiaceae	*Euphorbia norfolkiana* Boiss.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.00	167.94	25/11/2014	Euphorbiaceae	*Euphorbia norfolkiana*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from leaves
-29.02	167.96	27/12/2012	Proteaceae, Araceae	*Grevillea robusta*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from dead leaves
-29.05	167.93	25/12/2013	Araucariaceae, Proteaceae	*Grevillea robusta*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from dead wood
-29.04	167.94	25/10/2013	Hemerocallidaceae	*Hemerocallis* L.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from flowers
-29.04	167.94	21/12/2012	Hemerocallidaceae	*Hemerocallis* sp.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection leaf damage (larvae)
-29.02	167.95	22/11/2014	Hemerocallidaceae	*Hemerocallis* sp.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from leaves
-29.03	167.94	28/11/2014	Asteraceae	*Hieracium* sp.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from flowers
-29.03	167.99	22/10/2013	Convolvulaceae	*Ipomoea batatas*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.98	25/09/2013	Convolvulaceae	*Ipomoea batatas*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.05	167.92	23/11/2014	Convolvulaceae	*Ipomoea cairica*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.02	167.97	22/09/2013	Convolvulaceae	*Ipomoea cairica*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.03	167.99	22/12/2012	Convolvulaceae	*Ipomoea* sp.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from leaves
-29.01	167.95	26/12/2012	Oleaceae	*Jasminum* sp.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from leaves
-29.01	167.93	16/10/2014	Verbenaceae	*Lantana camara*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.03	167.99	22/12/2012	Fabaceae	*Medicago* L.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.02	167.96	27/12/2012	Myrtaceae, Convolvulaceae	*Metrosideros* sp., *Ipomoea* sp.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.04	167.99	24/12/2013	Rutaceae, Moraceae, unknown	*Murraya*, *Morus* sp.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.00	167.93	26/12/2012; 20/02/2014; 24/09/2013	Musaceae	*Musa* sp.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from fruit
-29.02	167.96	9/07/2013	Musaceae	*Musa* sp.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from dead leaves
-29.05	167.95	12/10/2014	NA	NA	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Light trap
-29.02	167.95	24/12/2013	Passifloraceae	*Passiflora ligularis* Juss.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.04	167.99	23/11/2014; 24/12/2013	Apiaceae	*Petroselinum crispum*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.04	167.99	25/11/2014	Fabaceae	*Phaseolus* sp.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.03	167.99	23/12/2012	Fabaceae	*Phaseolus* sp.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.03	167.99	21/12/2013	Fabaceae, Apiaceae	*Phaseolus* sp., *Apium graveolens*, *Daucus carota*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.00	167.93	24/12/2012	Fabaceae, Asteraceae	*Phaseolus* sp., *Lactuca sativa*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection (larvae)
-29.03	167.99	22/10/2013	Solanaceae	*Physalis peruviana* L.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.03	167.99	9/07/2013	Various, Solanaceae, Asteraceae	*Physalis* sp., *Bidens pilosa*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.01	167.94	23/12/2013	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from leaves
-29.05	167.93	23/11/2014	Phytolaccaceae	*Rivina humilis* L.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from leaves

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	22/12/2012; 7/10/2014; 23/05/2014	Solanaceae	*Solanum lycopersicum*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from flowers and leaves
-29.02	167.96	10/06/2013; 26/09/2013	Solanaceae	*Solanum melongena*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.02	167.96	23/10/2013	Solanaceae	*Solanum muricatum* Aiton	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.02	167.97	22/09/2013	Solanaceae	*Solanum nodiflorum*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.04	167.99	25/05/2014	Solanaceae	*Solanum tuberosum*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Beating
-29.03	167.99	22/10/2013	Chenopodiaceae	*Spinacia oleracea*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.03	167.99	22/03/2014	Meliaceae, Rubiaceae	*Toona* (Endl.) M.Roem., *Coffea* sp.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.03	167.99	22/10/2013	Poaceae, Fabaceae	*Trifolium* sp.	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.05	167.93	26/03/2014	Unknown	Unknown	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.03	167.99	22/12/2012	Poaceae	Unknown	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.03	167.99	24/11/2014	Unknown	Unknown	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.02	167.95	25/12/2013	Unknown	Unknown	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.01	167.95	22/11/2014	Unknown	Unknown	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.04	167.99	24/12/2013	Unknown	Unknown	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from dead wood in pot plant
-29.02	167.96	28/11/2014	Unknown	Unknown	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection from leaf litter
-29.12	167.95	15/10/2014	Cucurbitaceae	*Zehneria baueriana*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.12	167.95	14/10/2014	Cucurbitaceae	*Zehneria baueriana*	Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.02	167.96	9/07/2013	Various		Thysanoptera	Thripidae	*Hercinothrips bicinctus*	Y	Y	Hand collection
-29.05	167.92	23/05/2014	Solanaceae	*Solanum lycopersicum*	Thysanoptera	Thripidae	*Hercinothrips femoralis* (Reuter, 1891)	Y	Y	Trapping
-29.05	167.92	23/05/2014	Convolvulaceae	*Ipomoea cairica*	Thysanoptera	Thripidae	*Hercinothrips femoralis*	Y	Y	Beating
-29.05	167.95	20/02/2014	NA	NA	Lepidoptera	Crambidae	*Herpetogramma licarsisalis* (Walker, 1859)	N	Y	Light trap
-29.05	167.92	19/05/2014	NA	NA	Lepidoptera	Crambidae	*Herpetogramma licarsisalis*	N	Y	Light trap
-29.04	167.94	28/02/2014	NA	NA	Lepidoptera	Crambidae	*Herpetogramma licarsisalis*	N	Y	Light trap
-29.03	167.96	19/02/2014	NA	NA	Lepidoptera	Crambidae	*Herpetogramma licarsisalis*	N	Y	Light trap

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.96	20/02/2014	NA	NA	Lepidoptera	Crambidae	*Herpetogramma licarsisalis*	N	Y	Bucket light trap
-29.03	167.96	23/02/2014	NA	NA	Lepidoptera	Crambidae	*Herpetogramma licarsisalis*	N	Y	Light trap
-29.01	167.95	23/05/2014	NA	NA	Lepidoptera	Crambidae	*Herpetogramma licarsisalis*	N	Y	Light trap
-29.01	167.94	24/02/2014	NA	NA	Lepidoptera	Crambidae	*Herpetogramma licarsisalis*	N	Y	Light trap
-29.01	167.93	27/02/2014	NA	NA	Lepidoptera	Crambidae	*Herpetogramma licarsisalis*	N	Y	Light trap in eucalypt forest
-29.00	167.93	22/02/2014	NA	NA	Lepidoptera	Crambidae	*Herpetogramma licarsisalis*	N	Y	Bucket light trap in orchard
-29.03	167.93	19/02/2014	Poaceae, Solanaceae, various	*Zea mays*, *Solanum lycopersicum*	Lepidoptera	Crambidae	*Herpetogramma licarsisalis*	N	Y	Sweep net
-29.02	167.93	25/02/2014	Poaceae	*Cenchrus purpureus*	Lepidoptera	Crambidae	*Herpetogramma licarsisalis*	N	Y	Sweep net
-29.04	167.94	23/09/2013	Poaceae	*Digitaria* sp.	Coleoptera	Scarabaeidae	*Heteronychus arator* (Fabricius, 1775)	N	Y	Hand collection in lawn near lab
-29.05	167.95	20/02/2014	NA	NA	Coleoptera	Scarabaeidae	*Heteronychus arator*	N	Y	Light trap
-29.03	167.95	7/10/2014	NA	NA	Coleoptera	Scarabaeidae	*Heteronychus arator*	N	Y	Light trap
-29.03	167.95	10/06/2013	NA	NA	Coleoptera	Scarabaeidae	*Heteronychus arator*	N	Y	Hand collection attracted to light
-29.01	167.93	27/02/2014	NA	NA	Coleoptera	Scarabaeidae	*Heteronychus arator*	N	Y	Light trap in eucalypt forest
-29.03	167.96	23/02/2014	NA	NA	Coleoptera	Scarabaeidae	*Heteronychus arator*	N	Y	Light trap #4
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Scarabaeidae	*Heteronychus arator*	N	Y	Light trap #3
-29.05	167.92	26/11/2014	NA	NA	Coleoptera	Scarabaeidae	*Heteronychus arator*	N	Y	Light trap among Norfolk Island pines
-29.01	167.95	23/05/2014	NA	NA	Coleoptera	Scarabaeidae	*Heteronychus arator*	N	Y	Light trap Set 22.5.2014, collected 23.5.2014
-29.03	167.94	26/05/2014	NA	NA	Coleoptera	Scarabaeidae	*Heteronychus arator*	N	Y	Light trap Set 25.5.2014, collected 26.5.2014
-29.00	167.93	20/02/2014	Rutaceae	*Citrus* ×*aurantium*	Coleoptera	Scarabaeidae	*Heteronychus arator*	N	Y	Hand collection
-29.01	167.93	13/06/2013	Rutaceae	*Citrus* sp.	Sarcoptiformes	Histiostomatidae	*Histiostoma* Kramer, 1876	Y	?	Hand collection
-29.01	167.95	22/11/2014	Malvaceae	*Hibiscus* sp.	Thysanoptera	Phlaeothripidae	*Holoengythrips mayvardae* Mound & Tree, 2014	Y	N	Hand collection from dead twigs and leaves
-29.02	167.96	26/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Phlaeothripidae	*Holoengythrips mayvardae*	Y	N	Hand collection from dead branch and moss
-29.02	167.95	26/12/2013	Oleaceae	*Olea europaea* subsp. *cuspidata*	Thysanoptera	Phlaeothripidae	*Holoengythrips mayvardae*	Y	N	Hand collection from dead branches
-29.01	167.94	23/12/2013	Arecaceae	*Rhopalostylis baueri*	Thysanoptera	Phlaeothripidae	*Holoengythrips mayvardae*	Y	N	Hand collection from dead frond

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.02	167.96	25/12/2012	Meliaceae	*Toona ciliata*	Thysanoptera	Phlaeothripidae	*Holoengythrips maynardae*	Y	N	Hand collection from dead branches
-29.03	167.93	22/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Holoengythrips maynardae*	Y	N	Hand collection from dead branch
-29.01	167.95	26/10/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Holoengythrips maynardae*	Y	N	Hand collection from dead branch
-29.01	167.95	26/10/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Holoengythrips maynardae*	Y	N	Hand collection from dead branch and lichens
-29.02	167.96	27/12/2012	Arecaceae	Unknown	Thysanoptera	Phlaeothripidae	*Holoengythrips maynardae*	Y	N	Hand collection from dead leaves
-29.03	167.93	22/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Holoengythrips maynardae*	Y	N	Hand collection from dead wood
-29.02	167.95	24/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Holoengythrips maynardae*	Y	N	Hand collection from dead wood
-29.02	167.96	25/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Holoengythrips maynardae*	Y	N	Hand collection from dead wood
-29.02	167.96	29/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Holoengythrips maynardae*	Y	N	Hand collection from leaf litter
-29.04	167.99	23/11/2014	Malvaceae	*Hibiscus insularis*	Thysanoptera	Phlaeothripidae	*Holoengythrips maynardae*	Y	N	Hand collection from dead wood and dead seed heads
-29.01	167.94	24/02/2014	NA	NA	Diptera	Lauxaniidae	*Homoneura* van der Wulp, 1891	?	?	Light trap
-29.02	167.95	24/12/2013	Celastraceae	*Elaeodendron curtipendulum*	Thysanoptera	Phlaeothripidae	*Hoplandrothrips leai* (Karny, 1925)	N	N	Hand collection from lichens
-29.05	167.93	25/12/2013	Araucariaceae, Proteaceae	*Grevillea robusta*	Thysanoptera	Phlaeothripidae	*Hoplandrothrips leai*	N	N	Hand collection from dead wood
-29.02	167.96	29/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Phlaeothripidae	*Hoplandrothrips leai*	N	N	Hand collection
-29.01	167.95	26/12/2013	Oleaceae	*Olea europaea* subsp. *cuspidata*	Thysanoptera	Phlaeothripidae	*Hoplandrothrips leai*	N	N	Hand collection from dead branches
-29.02	167.96	25/12/2013	Meliaceae	*Toona ciliata*	Thysanoptera	Phlaeothripidae	*Hoplandrothrips leai*	N	N	Hand collection from dead branch
-29.02	167.95	25/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Hoplandrothrips leai*	N	N	Hand collection from dead branches
-29.02	167.96	29/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Hoplandrothrips leai*	N	N	Hand collection from leaf litter
-29.02	167.95	24/12/2013	Rosaceae, Meliaceae		Thysanoptera	Phlaeothripidae	*Hoplandrothrips leai*	N	N	Hand collection
-29.02	167.96	26/12/2013	Bignoniaceae	*Jacaranda* sp.	Thysanoptera	Phlaeothripidae	*Hoplothrips orientalis* (Ananthakrishnan, 1962)	Y	Y	Hand collection from dead branch
-29.04	167.94	10/07/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Hoplothrips orientalis*	Y	Y	Hand collection
-29.03	167.99	23/12/2012	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Hoplothrips orientalis*	Y	Y	Hand collection from pile of rubbish and dead twigs

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.94	22/12/2012	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Hoplothrips orientalis*	Y	Y	Hand collection on ground among dead twigs
-29.01	167.94	30/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Hoplothrips orientalis*	Y	Y	Hand collection from dead wood
-29.04	167.99	23/11/2014	Malvaceae	*Hibiscus insularis*	Thysanoptera	Phlaeothripidae	*Hoplothrips orientalis*	Y	Y	Hand collection from dead wood and seed heads
-29.03	167.95	11/06/2013; 12/06/2013; 25/09/2013	Apocynaceae	*Plumeria rubra*	Hemiptera	Diaspididae	*Howardia biclavis* (Comstock, 1883)	Y	Y	Hand collection
-29.02	167.96	26/09/2013	Apocynaceae	*Plumeria rubra*	Hemiptera	Diaspididae	*Howardia biclavis*	Y	Y	Hand collection
-29.04	167.99	25/09/2013	Rosaceae	*Malus pumila*	Hemiptera	Diaspididae	*Howardia biclavis*	Y	Y	Hand collection
-29.02	167.93	24/10/2013	Various		Diptera	Ephydridae	*Hydrellia tritici* Coquillett, 1903	Y	Y	Yellow pan among various young vegetables
-29.02	167.95	25/12/2012	Apocynaceae	*Alyxia gynopogon*	Diptera	Ephydridae	*Hydrellia tritici*	Y	Y	Beating
-29.03	167.99	24/12/2012	Cucurbitaceae	*Cucurbita pepo*	Diptera	Ephydridae	*Hydrellia tritici*	Y	Y	Yellow pan in bare soil beside curcubits
-29.03	167.99	24/12/2012	Musaceae	*Musa* sp.	Diptera	Ephydridae	*Hydrellia tritici*	Y	Y	Yellow pan
-29.05	167.98	10/10/2014	NA	NA	Diptera	Ephydridae	*Hydrellia tritici*	Y	Y	Light trap Set 9.10.14, collected 10.10.14
-29.01	167.95	25/12/2012	Lomariopsidaceae	*Nephrolepis* sp.	Diptera	Ephydridae	*Hydrellia tritici*	Y	Y	Yellow pan
-29.00	167.93	26/12/2012	Lamiaceae, Brassicaceae, Musaceae	*Ocimum basilicum*, *Musa* sp.	Diptera	Ephydridae	*Hydrellia tritici*	Y	Y	Yellow pan near bananas
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Diptera	Ephydridae	*Hydrellia tritici*	Y	Y	Yellow pan among plants
-29.03	167.94	19/02/2014	Poaceae	Unknown	Diptera	Ephydridae	*Hydrellia tritici*	Y	Y	Hand collection
-29.03	167.99	23/10/2013	Various		Diptera	Ephydridae	*Hydrellia tritici*	Y	Y	Yellow pan among various young vegetables
-29.01	167.94	24/02/2014	NA	NA	Lepidoptera	Herminiidae	*Hydrillodes norfolki* Holloway, 1977	N	N	Light trap
-29.05	167.95	27/05/2014	NA	NA	Hymenoptera	Colletidae	*Hylaeoides concinna* (Fabricius, 1775)	Y	Y	Hand collection from window sill
-29.01	167.92	16/10/2014	Asteraceae	*Sonchus oleraceus* L.	Hemiptera	Aphididae	*Hyperomyzus lactucae* (Linnaeus, 1758)	Y	Y	Hand collection
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Mesostigmata	Laelapidae	*Hypoaspis* Canestrini, 1884	Y	?	Berlese funnel from leaf litter under palms
-29.02	167.96	25/05/2014	Arecaceae	*Howea* sp.	Hymenoptera	Formicidae	*Hypoponera punctatissima* (Roger, 1859)	N	Y	Hand collection
-29.03	167.97	25/09/2013	Araucariaceae	*Araucaria heterophylla*	Hymenoptera	Formicidae	*Hypoponera punctatissima*	N	Y	Hand collection from timber

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.99	14/06/2013	Rosaceae	*Prunus persica* var. *persica*	Hemiptera	Aphididae	*Hysteroneura setariae* (Thomas, 1878)	Y	Y	Hand collection from leaves
-29.01	167.93	20/05/2014	Poaceae	*Paspalum* sp.	Hemiptera	Aphididae	*Hysteroneura setariae*	Y	Y	Sweep net in eucalypt forest
-29.04	167.93	18/02/2014	Rutaceae	*Citrus ×aurantium*	Hemiptera	Monophlebidae	*Icerya* Signoret, 1875	?	?	Hand collection
-29.03	167.93	12/06/2013	Rutaceae	*Citrus* sp.	Hemiptera	Monophlebidae	*Icerya* sp.	?	?	Hand collection (immatures)
-29.03	167.99	20/02/2014	Moraceae	*Ficus carica*	Hemiptera	Monophlebidae	*Icerya* sp.	?	?	Hand collection (immatures)
-29.04	167.99	25/09/2013	Rosaceae	*Fragaria ×ananassa*	Hemiptera	Monophlebidae	*Icerya* sp.	?	?	Hand collection
-29.04	167.93	18/02/2014	Rhamnaceae	*Hovenia dulcis* Thunb.	Hemiptera	Monophlebidae	*Icerya* sp.	?	?	Hand collection
-29.04	167.93	18/02/2014	Musaceae	*Musa* sp.	Hemiptera	Monophlebidae	*Icerya* sp.	?	?	Hand collection
-29.05	167.97	24/02/2014	Vitaceae	*Vitis vinifera*	Hemiptera	Monophlebidae	*Icerya* sp.	?	?	Hand collection
-29.00	167.93	24/09/2013	Rutaceae	*Citrus sinensis*	Hemiptera	Monophlebidae	*Icerya purchasi* Maskell, 1879	N	Y	Hand collection
-29.05	167.93	27/09/2013	Rutaceae	*Citrus* sp.	Hemiptera	Monophlebidae	*Icerya purchasi*	N	Y	Hand collection
-29.04	167.93	18/02/2014	Caricaceae	*Carica papaya*	Hemiptera	Monophlebidae	*Icerya purchasi*	N	Y	Hand collection
-29.03	167.96	23/02/2014	NA	NA	Lepidoptera	Immidae	*Imma celiphaga* Bradley, 1982	N	Y	Light trap
-29.01	167.94	24/02/2014	NA	NA	Lepidoptera	Immidae	*Imma celiphaga*	N	Y	Light trap
-29.03	167.96	25/05/2014	NA	NA	Lepidoptera	Immidae	*Imma celiphaga*	N	Y	Light trap
-29.05	167.95	20/02/2014	NA	NA	Lepidoptera	Immidae	*Imma celiphaga*	N	Y	Light trap
-29.12	167.95	15/10/2014	Fabaceae	*Lupinus* sp.	Lepidoptera	Immidae	*Imma* Walker, 1859	?	?	Beating
-29.03	167.94	24/05/2014	NA	NA	Orthoptera	Podoscirtidae	*Insulascirtus christiani* Otte, & Rentz, 1985	N	N	Dipping and hand collection from old discarded animal cage with small container holding water
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Mesostigmata	Ascidae	*Iphidozercon gibbus* (Berlese, 1903)	Y	N	Berlese funnel from leaf litter under palms
-29.05	167.95	24/05/2014	NA	NA	Mesostigmata	Ascidae	*Iphidozercon gibbus*	Y	N	*Calicoides* trap
-29.04	167.99	8/10/2014	Rutaceae	*Citrus ×aurantium*	Hymenoptera	Formicidae	*Iridomyrmex* Mayr, 1862	?	?	Hand collection
-29.12	167.95	14/10/2014	Apocynaceae	*Gomphocarpus physocarpus*	Hymenoptera	Formicidae	*Iridomyrmex* sp.	?	?	Hand collection
-29.12	167.96	15/10/2014	Convolvulaceae	*Ipomoea cairica*	Hymenoptera	Formicidae	*Iridomyrmex* sp.	?	?	Beating
-29.12	167.96	15/10/2014	Malvaceae	*Argusaria patersonia*	Hymenoptera	Formicidae	*Iridomyrmex* sp.	?	?	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	23/05/2014	Euphorbiaceae	*Ricinus communis*	Hymenoptera	Formicidae	*Iridomyrmex* sp.	?	?	Beating
-29.06	167.94	22/09/2013	Oleaceae	*Olea europaea* subsp. *cuspidata*	Hymenoptera	Formicidae	*Iridomyrmex calvus* Emery, 1914	N	Y	Hand collection
-29.03	167.95	22/09/2013	Rutaceae	*Citrus* sp.	Hymenoptera	Formicidae	*Iridomyrmex calvus*	N	Y	Hand collection
-29.00	167.93	23/12/2012	Various		Hymenoptera	Formicidae	*Iridomyrmex suchieri* Forel, 1907	N	Y	Yellow pan among various young vegetables
-29.05	167.97	24/02/2014	Caricaceae	*Carica papaya*	Hymenoptera	Formicidae	*Iridomyrmex suchieri*	N	Y	Hand collection
-29.03	167.93	19/02/2014	Poaceae	*Cenchrus purpureus*	Hymenoptera	Formicidae	*Iridomyrmex suchieri*	N	Y	Hand collection
-29.05	167.97	24/02/2014	Rutaceae	*Citrus* sp.	Hymenoptera	Formicidae	*Iridomyrmex suchieri*	N	Y	Hand collection
-29.12	167.95	14/10/2014	Poaceae	*Digitaria* sp.	Hymenoptera	Formicidae	*Iridomyrmex suchieri*	N	Y	Hand collection
-29.04	167.93	18/02/2014	Apiaceae	*Foeniculum vulgare*	Hymenoptera	Formicidae	*Iridomyrmex suchieri*	N	Y	Hand collection
-29.04	167.96	10/10/2014	Proteaceae	*Grevillea* R.Br. ex Knight	Hymenoptera	Formicidae	*Iridomyrmex suchieri*	N	Y	Beating (workers)
-29.03	167.99	25/09/2013	Asteraceae	*Lactuca sativa*	Hymenoptera	Formicidae	*Iridomyrmex suchieri*	N	Y	Hand collection from hydroponics
-29.02	167.97	22/09/2013	NA	NA	Hymenoptera	Formicidae	*Iridomyrmex suchieri*	N	Y	Hand collection from ant nest
-29.06	167.95	27/09/2013	NA	NA	Hymenoptera	Formicidae	*Iridomyrmex suchieri*	N	Y	Hand collection from soil
-29.04	167.94	23/09/2013	NA	NA	Hymenoptera	Formicidae	*Iridomyrmex suchieri*	N	Y	Hand collection from soil
-29.02	167.96	26/09/2013	NA	NA	Hymenoptera	Formicidae	*Iridomyrmex suchieri*	N	Y	Hand collection from soil
-29.04	167.99	25/09/2013;	NA	NA	Hymenoptera	Formicidae	*Iridomyrmex suchieri*	N	Y	Hand collection
-29.04	167.94	23/09/2013	NA	*NA*	Hymenoptera	Formicidae	*Iridomyrmex suchieri*	N	Y	Hand collection
-29.03	167.97	18/02/2014	NA	NA	Hymenoptera	Formicidae	*Iridomyrmex suchieri*	N	Y	Hand collection from timber
-29.06	167.94	11/10/2014	Combretaceae	*Terminalia catappa*	Hymenoptera	Formicidae	*Iridomyrmex suchieri*	N	Y	Beating
-29.04	167.99	23 - 24/03/2014	Various		Hymenoptera	Formicidae	*Iridomyrmex suchieri*	N	Y	Yellow pan among various vegetables
-29.05	167.92	24/09/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Tenebrionidae	*Iscamus* Fauvel, 1904	?	?	Hand collection from felled tree
-29.05	167.92	2/12/2014; 3/12/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Tenebrionidae	*Iscamus* sp.	?	?	Hand collection from felled tree #2
-29.03	167.97	7/10/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Tenebrionidae	*Iscamus* sp.	?	?	Hand collection from timber
-29.03	167.97	7/10/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Tenebrionidae	*Iscamus* sp.	?	?	Hand collection from timber
-29.03	167.97	18/02/2014	NA	NA	Coleoptera	Tenebrionidae	*Iscamus* sp.	?	?	Hand collection from timber billets

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Tenebrionidae	*Iscamus* sp.	?	?	Light trap #3
-29.03	167.97	27/11/2014	NA	NA	Coleoptera	Tenebrionidae	*Iscamus* sp.	?	?	Light trap
-29.02	167.97	22/12/2012	Polygonaceae	*Rumex brownii*	Odonata	Coenagrionidae	*Ischnura aurora* (Brauer, 1865)	N	Y	Sweep net of dead seed heads
-29.03	167.97	25/09/2013	Araucariaceae	*Araucaria heterophylla*	Blattodea	Kalotermitidae	*Kalotermes banksiae* (Hill, 1942)	N	Y	Hand collection from timber
-29.03	167.96	20/02/2014	NA	NA	Blattodea	Kalotermitidae	*Kalotermes banksiae*	N	Y	Bucket light trap
-29.05	167.94	22/09/2013	Oleaceae	*Olea europaea* subsp. *cuspidata*	Blattodea	Kalotermitidae	*Kalotermes banksiae*	N	Y	Hand collection
-29.05	167.92	27/09/2013	Araucariaceae	*Araucaria heterophylla*	Blattodea	Kalotermitidae	*Kalotermes banksiae*	N	Y	Hand collection from dead branch on live tree
-29.04	167.99	22/05/2014	Rutaceae	*Citrus* sp.	Thysanoptera	Phlaeothripidae	*Karnyothrips flavipes* (Jones, 1912)	Y	Y	Beating
-29.04	167.99	24/03/2014	Rutaceae	*Citrus* sp.	Thysanoptera	Phlaeothripidae	*Karnyothrips flavipes*	Y	Y	Hand collection from young leaves
-29.03	167.99	24/11/2014	Apiaceae	*Coriandrum sativum*	Thysanoptera	Phlaeothripidae	*Karnyothrips flavipes*	Y	Y	Hand collection from flowers
-29.00	167.94	24/02/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Phlaeothripidae	*Karnyothrips flavipes*	Y	Y	Beating
-29.04	167.99	25/09/2013	Rutaceae	*Citrus* ×*aurantium*	Thysanoptera	Phlaeothripidae	*Karnyothrips flavipes*	Y	Y	Hand collection from leaves and fruit
-29.02	167.95	23/12/2012	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Phlaeothripidae	*Karnyothrips melaleucus* (Bagnall, 1911)	Y	Y	Hand collection
-29.03	167.99	22/03/2014	Poaceae	*Cenchrus purpureus*	Thysanoptera	Phlaeothripidae	*Karnyothrips melaleucus*	Y	Y	Hand collection
-29.04	167.99	23/11/2014	Malvaceae	*Hibiscus insularis*	Thysanoptera	Phlaeothripidae	*Karnyothrips melaleucus*	Y	Y	Hand collection from dead wood, dead seed heads
-29.03	167.99	9/07/2013	NA	NA	Thysanoptera	Phlaeothripidae	*Karnyothrips melaleucus*	Y	Y	Hand collection from grassy fence
-29.00	167.94	24/03/2014	Poaceae, Oleaceae	*Olea europaea* subsp. *cuspidata*	Thysanoptera	Phlaeothripidae	*Karnyothrips melaleucus*	Y	Y	Hand collection from grasses, olive leaf litter
-29.00	167.94	27/11/2014	Oleaceae	*Olea europaea* subsp. *cuspidata*	Thysanoptera	Phlaeothripidae	*Karnyothrips melaleucus*	Y	Y	Hand collection from litter
-29.02	167.96	25/03/2014	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Karnyothrips melaleucus*	Y	Y	Hand collection
-29.00	167.94	24/03/2014	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Karnyothrips melaleucus*	Y	Y	Hand collection
-29.03	167.99	23/03/2014	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Karnyothrips melaleucus*	Y	Y	Hand collection, berlesate of dried grass
-29.01	167.93	25/11/2014	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Karnyothrips melaleucus*	Y	Y	Hand collection in eucalypt forest
-29.05	167.93	25/03/2014	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Karnyothrips melaleucus*	Y	Y	Hand collection from grass bases

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.92	23/11/2014	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Phlaeothripidae	*Karnyothrips melaleucus*	Y	Y	Hand collection
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Collembola	Katiannidae	*Katianna* Börner, 1906	Y	?	Berlese funnel from leaf litter under palms
-29.04	167.98	27/11/2014	Vitaceae	*Vitis vinifera*	Mesostigmata	Phytoseiidae	*Kuzinellus scytinus* (Chazeau, 1970)	Y	Y	Ethanol wash
-29.03	167.94	24/11/2014	Geraniaceae	*Pelargonium* sp.	Mesostigmata	Phytoseiidae	*Kuzinellus scytinus*	Y	Y	Ethanol wash
-29.00	167.93	21/02/2014	NA	NA	Diptera	Lonchaeidae	*Lamprolonchaea brouniana* (Bezzi, 1919)	Y	Y	Bucket light trap
-29.03	167.99	20/02/2014	Fabaceae	*Phaseolus vulgaris*	Diptera	Lonchaeidae	*Lamprolonchaea brouniana*	Y	Y	Hand collection
Unknown	Unknown	18/03/2013	Solanaceae	*Solanum lycopersicum*	Diptera	Lonchaeidae	*Lamprolonchaea brouniana*	Y	Y	Hand collection
-29.00	167.93	20/02/2014	Convolvulaceae	*Ipomoea batatas*	Diptera	Lonchaeidae	*Lamprolonchaea brouniana*	Y	Y	Hand collection
-29.04	167.99	26/05/2014	Rutaceae	*Citrus reticulata*	Coleoptera	Nitidulidae	*Lasiodactylus* Perty, 1830	?	?	Hand collection from fallen fruit
-29.01	167.95	23/09/2013	Rutaceae	*Citrus ×limon*	Coleoptera	Nitidulidae	*Lasiodactylus calvus* Olliff, 1888	N	Y	Hand collection
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Nitidulidae	*Lasiodactylus calvus*	N	Y	Light trap #3
-29.02	167.95	25/12/2012	Lomariopsidaceae	*Nephrolepis* sp.	Coleoptera	Nitidulidae	*Lasiodactylus calvus*	N	Y	Yellow pan
-29.01	167.96	10/06/2013	Rutaceae	*Citrus ×aurantium*	Coleoptera	Nitidulidae	*Lasiodactylus calvus*	N	Y	Hand collection from rotten fruit
-29.12	167.95	14/10/2014	Malvaceae	*Lagunaria patersonia*	Coleoptera	Ptinidae	*Leanobium marmoratus* (Lea, 1924)	N	N	Hand collection and beating
-29.02	167.57	10/12/2014	NA	NA	Coleoptera	Ptinidae	*Leanobium marmoratus*	N	N	Hand collection
-29.02	167.94	2/12/2014	NA	NA	Coleoptera	Ptinidae	*Leanobium marmoratus*	N	N	Light trap in Norfolk Island pines
-29.03	167.97	27/11/2014	NA	NA	Coleoptera	Ptinidae	*Leanobium marmoratus*	N	N	Light trap
-29.01	167.93	26/11/2014	Myrtaceae	*Eucalyptus* sp.	Coleoptera	Ptinidae	*Leanobium marmoratus*	N	N	Sweep net
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Hemiptera	Reduviidae	*Leavlia norfolkiana* (Wygodzinsky, 1956)	N	N	Berlese funnel from leaf litter under palms
-29.02	167.92	25/05/2014	Myrtaceae	*Eucalyptus* sp.	Hemiptera	Reduviidae	*Leavlia norfolkiana*	N	N	Trapping from eucalypt leaf litter
-29.01	167.93	13/06/2013	Rutaceae	*Citrus* sp.	Sarcoptiformes	Glycyphagidae	*Lepidoglyphus destructor* (Schrank, 1781)	Y	Y	Hand collection
-29.03	167.92	21/05/2014	Arecaceae	*Howea* sp.	Hemiptera	Diaspididae	*Lepidosaphes* Shimer, 1868	?	?	Hand collection
-29.00	167.93	12/06/2013	Rutaceae	*Citrus ×aurantium*	Hemiptera	Diaspididae	*Lepidosaphes beckii* (Newman, 1869)	N	Y	Hand collection
-29.04	167.99	14/06/2013	Rutaceae	*Citrus ×aurantium*	Hemiptera	Diaspididae	*Lepidosaphes beckii*	N	Y	Hand collection
-29.00	167.93	24/09/2013	Rutaceae	*Citrus ×aurantium*	Hemiptera	Diaspididae	*Lepidosaphes beckii*	N	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.94	23/09/2013	Rutaceae	*Citrus ×limon*	Hemiptera	Diaspididae	*Lepidosaphes beckii*	N	Y	Hand collection
-29.05	167.93	27/09/2013	Rutaceae	*Citrus* sp.	Hemiptera	Diaspididae	*Lepidosaphes beckii*	N	Y	Hand collection
-29.03	167.93	12/06/2013	Rutaceae	*Citrus* sp.	Hemiptera	Diaspididae	*Lepidosaphes beckii*	N	Y	Hand collection
-29.03	167.95	22/09/2013	Rutaceae	*Citrus* sp.	Hemiptera	Diaspididae	*Lepidosaphes beckii*	N	Y	Hand collection
-29.02	167.93	25/02/2014	Rutaceae	*Citrus* sp.	Hemiptera	Diaspididae	*Lepidosaphes beckii*	N	Y	Hand collection
-29.01	167.93	13/06/2013	Rutaceae	*Citrus* sp.	Hemiptera	Diaspididae	*Lepidosaphes beckii*	N	Y	Hand collection
-29.03	167.93	26/09/2013	Rutaceae	*Citrus ×aurantium*	Hemiptera	Diaspididae	*Lepidosaphes beckii*	N	Y	Hand collection
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Psocodea	Lepidopsocidae	*Lepolepis graemei* Smithers & Thornton, 1974	N	N	Berlese funnel from leaf litter under palms
-29.03	167.99	23/10/2013	Various		Diptera	Sphaeroceridae	*Leptocera* Olivier, 1813	?	?	Yellow pan among various young vegetables
-29.00	167.93	24/10/2013	Various		Diptera	Sphaeroceridae	*Leptocera* sp.	?	?	Yellow pan among various young vegetables
-29.01	167.94	24/02/2014	NA	NA	Diptera	Sphaeroceridae	*Leptocera* sp.	?	?	Light trap
-29.01	167.93	27/02/2014	NA	NA	Diptera	Sphaeroceridae	*Leptocera* sp.	?	?	Light trap from eucalypt forest
-29.03	167.96	23/02/2014	NA	NA	Diptera	Sphaeroceridae	*Leptocera* sp.	?	?	Light trap #4
-29.03	167.96	20/02/2014	NA	NA	Diptera	Sphaeroceridae	*Leptocera* sp.	?	?	Light trap #3
-29.03	167.99	20/02/2014	Fabaceae	*Phaseolus vulgaris*	Diptera	Sphaeroceridae	*Leptocera* sp.	?	?	Hand collection
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Diptera	Sphaeroceridae	*Leptocera* sp.	?	?	Yellow pan
-29.03	167.98	25/09/2013	Solanaceae	*Solanum melongena*	Diptera	Sphaeroceridae	*Leptocera* sp.	?	?	Beating
-29.01	167.93	27/02/2014	NA	NA	Hemiptera	Cixiidae	*Leptolamia lunata* Löcker, 2014	Y	Y	Light trap in eucalypt forest
-29.06	167.96	2/06/2014	NA	NA	Diptera	Milichiidae	*Leptometopa* Becker, 1903	Y	?	LuciLure trap
-29.06	167.96	12/06/2014	NA	NA	Diptera	Milichiidae	*Leptometopa* sp.	Y	?	LuciLure trap
-29.05	167.92	19/05/2014	NA	NA	Lepidoptera	Noctuidae	*Leucania stenographa* Lower, 1900	N	Y	Light trap
-29.04	167.94	28/02/2014	NA	NA	Lepidoptera	Noctuidae	*Leucania stenographa*	N	Y	Light trap
-29.01	167.93	27/02/2014	NA	NA	Lepidoptera	Noctuidae	*Leucania stenographa*	N	Y	Light trap in eucalypt forest
-29.05	167.95	20/02/2014	NA	NA	Lepidoptera	Noctuidae	*Leucania stenographa*	N	Y	Light trap
-29.03	167.96	25/05/2014	NA	NA	Diptera	Limoniidae	*Limonia* Meigen, 1803	?	?	Light trap

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.02	167.97	22/09/2013	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Diaspididae	*Lindingapis rossi* (Maskell, 1892)	N	Y	Hand collection
-29.02	167.93	25/02/2014	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Diaspididae	*Lindingapis rossi*	N	Y	Hand collection
-29.00	167.94	24/02/2014	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Diaspididae	*Lindingapis rossi*	N	Y	Hand collection
-29.05	167.92	24/09/2013	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Diaspididae	*Lindingapis rossi*	N	Y	Hand collection from felled tree
-29.03	167.95	25/09/2013	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Diaspididae	*Lindingapis rossi*	N	Y	Hand collection
-29.02	167.96	10/06/2013	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Diaspididae	*Lindingapis rossi*	N	Y	Hand collection
-29.02	167.94	11/06/2013	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Diaspididae	*Lindingapis rossi*	N	Y	Hand collection
-29.02	167.97	22/09/2013	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Diaspididae	*Lindingapis rossi*	N	Y	Hand collection
-29.05	167.92	27/09/2013	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Diaspididae	*Lindingapis rossi*	N	Y	Hand collection from felled tree
-29.02	167.93	27/09/2013	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Diaspididae	*Lindingapis rossi*	N	Y	Hand collection
-29.02	167.93	27/09/2013	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Diaspididae	*Lindingapis rossi*	N	Y	Ethanol wash
-29.03	167.99	25/09/2013	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Diaspididae	*Lindingapis rossi*	N	Y	Hand collection from hydroponics
-29.02	167.93	25/05/2014	Rubiaceae	*Coprosma* sp.	Hemiptera	Diaspididae	*Lindingapis rossi*	N	Y	Hand collection
-29.03	167.95	15/06/2013	Hemerocallidaceae	*Dianella intermedia* Endl.	Hemiptera	Diaspididae	*Lindingapis rossi*	N	Y	Hand collection
-29.04	167.96	26/02/2014	Myrtaceae	*Leptospermum* sp.	Hemiptera	Diaspididae	*Lindingapis rossi*	N	Y	Beating
-29.02	167.96	10/06/2013	Lythraceae	*Punica granatum*	Hemiptera	Diaspididae	*Lindingapis rossi*	N	Y	Hand collection
-29.04	167.96	26/02/2014	Fabaceae	Unknown	Hemiptera	Diaspididae	*Lindingapis rossi*	N	Y	Hand collection
-29.04	167.94	9/06/2013	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Diaspididae	*Lindingapis rossi*	N	Y	Hand collection
-29.04	167.92	18/02/2014	NA	NA	Hymenoptera	Formicidae	*Linepithema humile* (Mayr, 868)	N	Y	Hand collection
-29.02	167.92	24/06/2014	NA	NA	Hymenoptera	Formicidae	*Linepithema humile*	N	Y	LuciLure trap
-29.04	167.94	18/05/2014	NA	NA	Hymenoptera	Formicidae	*Linepithema humile*	N	Y	Hand collection
-29.03	167.92	21/05/2014	Caricaceae	*Carica papaya*	Hymenoptera	Formicidae	*Linepithema humile*	N	Y	Beating
-29.03	167.99	11/10/2014	Brassicaceae	*Brassica rapa* L.	Hemiptera	Aphididae	*Lipaphis pseudobrassicae* (Davis, 1914)	Y	Y	Hand collection
-29.04	167.99	8/10/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Aphididae	*Lipaphis pseudobrassicae*	Y	Y	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.98	14/06/2013	Brassicaceae	*Brassica oleracea* var. *italica*	Hemiptera	Aphididae	*Lipaphis pseudobrassicae*	Y	Y	Beating
-29.04	167.99	23 - 24/03/2014	Various		Diptera	Agromyzidae	*Liriomyza* Mik, 1894	Y	?	Yellow pan among various vegetables
-29.03	167.99	21/02/2014	Fabaceae	*Glycine max*	Diptera	Agromyzidae	*Liriomyza* sp.	Y	?	Hand collection
-29.05	167.97	24/02/2014	Brassicaceae	*Nasturtium* Aiton	Diptera	Agromyzidae	*Liriomyza* sp.	Y	?	Hand collection
-29.03	167.99	23/12/2012	Poaceae and Brassicaceae	*Zea mays*, *Brassica oleracea* var. *italica*	Diptera	Agromyzidae	*Liriomyza* sp.	Y	?	Yellow pan among old corn and young broccoli
-29.03	167.99	23/10/2013	Various		Diptera	Agromyzidae	*Liriomyza brassicae* (Riley, 1885)	Y	Y	Yellow pan among various young vegetables
-29.00	167.93	23/12/2012	Various		Diptera	Agromyzidae	*Liriomyza brassicae*	Y	Y	Yellow pan
-29.05	167.94	22/09/2013	Brassicaceae	*Brassica oleracea* var. *capitata*	Diptera	Agromyzidae	*Liriomyza brassicae*	Y	Y	Hand collection
-29.03	167.99	25/09/2013	Brassicaceae	*Brassica oleracea* var. *italica*	Diptera	Agromyzidae	*Liriomyza brassicae*	Y	Y	Hand collection
-29.00	167.93	24/12/2012	Caricaceae	*Carica papaya*	Diptera	Agromyzidae	*Liriomyza brassicae*	Y	Y	Yellow pan
-29.00	167.93	20/02/2014	Cucurbitaceae	*Cucurbita pepo*	Diptera	Agromyzidae	*Liriomyza brassicae*	Y	Y	Hand collection
-29.00	167.93	23/10/2013	Asteraceae and Chenopodiaceae	*Lactuca sativa*, *Beta vulgaris*	Diptera	Agromyzidae	*Liriomyza brassicae*	Y	Y	Beating lettuce leaves, beetroot flowers
-29.03	167.99	20/02/2014	Polygonaceae, Asteraceae	*Rheum rhababarum*, *Bidens pilosa*	Diptera	Agromyzidae	*Liriomyza brassicae*	Y	Y	Sweep net
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Diptera	Agromyzidae	*Liriomyza brassicae*	Y	Y	Yellow pan
-29.03	167.98	25/09/2013	Solanaceae	*Solanum melongena*	Diptera	Agromyzidae	*Liriomyza brassicae*	Y	Y	Beating
-29.03	167.99	23/12/2012	Poaceae and Brassicaceae	*Zea mays*, *Brassica oleracea* var. *italica*	Diptera	Agromyzidae	*Liriomyza brassicae*	Y	Y	Yellow pan among old corn and young broccoli
-29.03	167.99	22 - 23/03/2014	Various		Diptera	Agromyzidae	*Liriomyza brassicae*	Y	Y	Yellow pan among various vegetables
-29.00	167.93	24/10/2013	Various		Diptera	Agromyzidae	*Liriomyza caulophaga* (Kleinschmidt, 1961)	Y	Y	Yellow pan
-29.00	167.93	24/09/2013	Cucurbitaceae	*Cucurbita maxima*	Diptera	Agromyzidae	*Liriomyza caulophaga*	Y	Y	Sweep net
-29.06	167.95	27/09/2013	NA	NA	Diptera	Agromyzidae	*Liriomyza caulophaga*	Y	Y	Hand collection from soil
-29.03	167.96	20/02/2014	NA	NA	Diptera	Agromyzidae	*Liriomyza caulophaga*	Y	Y	Light trap #3
-29.03	167.99	21/02/2014	Poaceae	*Triticum* sp.	Diptera	Agromyzidae	*Liriomyza caulophaga*	Y	Y	Hand collection
-29.03	167.99	22 - 23/03/2014	Various		Diptera	Agromyzidae	*Liriomyza caulophaga*	Y	Y	Yellow pan among various vegetables

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	24/12/2012	Cucurbitaceae	*Cucurbita pepo*	Diptera	Agromyzidae	*Liriomyza electa* Spencer, 1977	Y	Y	Yellow pan on bare soil beside cucurbits
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Diptera	Agromyzidae	*Liriomyza electa*	Y	Y	Yellow pan
-29.03	167.99	22 - 23/03/2014	Various		Diptera	Agromyzidae	*Liriomyza electa*	Y	Y	Yellow pan among various vegetables
-29.00	167.93	24/10/2013	Various		Hymenoptera	Crabronidae	*Liris festinans* (Smith, 1859)	N	Y	Yellow pan among various young vegetables
-29.00	167.93	23 - 24/03/2014	Various		Hymenoptera	Crabronidae	*Liris festinans*	N	Y	Yellow pan among various vegetables
-29.00	167.93	27/02/2014	Various		Hymenoptera	Crabronidae	*Liris festinans*	N	Y	Yellow pan among various young vegetables
-29.00	167.93	26/12/2012	Various, Apiaceae, Brassiaceae	*Apium graveolens*	Hymenoptera	Crabronidae	*Liris festinans*	N	Y	Yellow pan
-29.03	167.99	24/12/2012	Musaceae	*Musa* sp.	Hymenoptera	Crabronidae	*Liris festinans*	N	Y	Yellow pan
-29.00	167.93	26/12/2012	Musaceae, Asteraceae	*Musa* sp., *Lactuca sativa*	Hymenoptera	Crabronidae	*Liris festinans*	N	Y	Yellow pan
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Hymenoptera	Crabronidae	*Liris festinans*	N	Y	Yellow pan
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Hymenoptera	Crabronidae	*Liris festinans*	N	Y	Yellow pan
-29.03	167.99	23/12/2012	Poaceae and Brassicaceae	*Zea mays*, *Brassica oleracea* var. *italica*	Hymenoptera	Crabronidae	*Liris festinans*	N	Y	Yellow pan
-29.03	167.99	22 - 23/03/2014	Various		Hymenoptera	Crabronidae	*Liris festinans*	N	Y	Yellow pan among various vegetables
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Hemiptera	Aradidae	*Lissaptera*? sp.	Y	?	Berlese funnel from leaf litter under palms
-29.00	167.93	20/02/2014	Rutaceae	*Citrus* ×*aurantium*	Hymenoptera	Ichneumonidae	*Lissopimpla* Kriechbaumer, 1889	?	?	Hand collection
-29.02	167.95	21/12/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Lissothrips taverneri* Mound & Tree, 2015	Y	N	Hand collection
-29.01	167.94	24/12/2013	Euphorbiaceae, Oleaceae	*Baloghia inophylla*, *Jasminum* sp.	Thysanoptera	Phlaeothripidae	*Lissothrips taverneri*	Y	N	Hand collection
-29.02	167.95	24/12/2013	Celastraceae	*Elaeodendron curtipendulum*	Thysanoptera	Phlaeothripidae	*Lissothrips taverneri*	Y	N	Hand collection from lichens
-29.02	167.96	29/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Phlaeothripidae	*Lissothrips taverneri*	Y	N	Hand collection
-29.02	167.96	26/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Phlaeothripidae	*Lissothrips taverneri*	Y	N	Hand collection from dead branches and moss
-29.01	167.94	30/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Lissothrips taverneri*	Y	N	Hand collection from mossy dead branch
-29.01	167.94	24/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Lissothrips taverneri*	Y	N	Hand collection from dead wood
-29.01	167.93	26/11/2014	Myrtaceae	*Eucalyptus* sp.	Coleoptera	Mycetophagidae	*Litargus* Erichson, 1846	Y	?	Hand collection from under timber

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	24/12/2012	Musaceae	*Musa* sp.	Coleoptera	Mycetophagidae	*Litargus* sp.	Y	?	Yellow pan
-29.05	167.95	12/10/2014	NA	NA	Lepidoptera	Tortricidae	*Lobesia transtrifera* (Meyrick, 1920)	Y	Y	Light trap
-29.02	167.93	28/11/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Tenebrionidae	*Lorelus fumatus* (Lea, 1929)	N	Y	Hand collection
-29.02	167.93	25/02/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Tenebrionidae	*Lorelus fumatus*	N	Y	Hand collection from under bark of billets
-29.05	167.93	24/09/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Tenebrionidae	*Lorelus fumatus*	N	Y	Hand collection from felled tree
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Tenebrionidae	*Lorelus fumatus*	N	Y	Light trap #3
-29.05	167.98	24/02/2014	Asparagaceae	*Yucca aloifolia*	Coleoptera	Tenebrionidae	*Lorelus fumatus*	N	Y	Beating
-29.03	167.97	7/10/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Tenebrionidae	*Lorelus fumatus*	N	Y	Hand collection
-29.05	167.92	27/09/2013	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Tydeidae	*Lorryia* Oudemans, 1925	Y	?	Hand collection from felled tree
-29.04	167.98	9/10/2014	Anacardiaceae	*Mangifera indica*	Diptera	Calliphoridae	*Lucilia* Robineau-Desvoidy, 1830	?	?	Sweep net and beating various vegetables
-29.00	167.93	23/12/2012; 24/10/2013	Various		Diptera	Calliphoridae	*Lucilia sericata* (Meigen, 1826)	N	Y	Yellow pan among seedlings
-29.05	167.97	25/10/2014	NA	NA	Diptera	Calliphoridae	*Lucilia sericata*	N	Y	Bezzilure trap
-29.03	167.98	24/06/2014; 12/12/2014	NA	NA	Diptera	Calliphoridae	*Lucilia sericata*	N	Y	LuciLure trap
-29.02	167.97	2/06/2014	NA	NA	Diptera	Calliphoridae	*Lucilia sericata*	N	Y	LuciLure trap
-29.04	167.99	23 - 24/03/2014	Various		Diptera	Calliphoridae	*Lucilia sericata*	N	Y	Yellow pan
-29.00	167.93	24/10/2013	Various		Diptera	Phoridae	*Lycoriella sativae* (Johannsen, 1912)	Y	N	Yellow pan among various young vegetables
-29.01	167.92	26/11/2014	NA	NA	Diptera	Sciaridae	*Lycoriella sativae*	Y	N	*Culicoides* trap among various Norfolk Island pines
-29.03	167.99	23/10/2013	Various		Diptera	Sciaridae	*Lycoriella sativae*	Y	N	Yellow pan among various young vegetables
-29.01	167.92	16/10/2014	NA	NA	Coleoptera	Bostrichidae	*Lyctus brunneus* (Stephens, 1830)	Y	Y	Light trap
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Bostrichidae	*Lyctus brunneus*	Y	Y	Light trap #3
-29.03	167.96	25/09/2013	NA	NA	Coleoptera	Bostrichidae	*Lyctus brunneus*	Y	Y	Hand collection from timber
-29.01	167.93	26/02/2014	Myrtaceae	*Eucalyptus* sp.	Coleoptera	Bostrichidae	*Lyctus brunneus*	Y	Y	Hand collection
-29.05	167.95	12/10/2014	NA	NA	Hemiptera	Miridae	*Lygus* Herklots, 1858	?	?	Light trap
-29.03	167.95	7/10/2014	NA	NA	Hemiptera	Miridae	*Lygus* sp.	?	?	Light trap
-29.04	167.98	9/10/2014	Anacardiaceae	*Mangifera indica*	Mesostigmata	Macrochelidae	*Macrocheles* Latreille, 1829	Y	?	Sweep net and beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.05	167.95	12/10/2014	NA	NA	Mesostigmata	Macrocheliidae	*Macrocheles* sp.	Y	?	Light trap
-29.03	167.96	23/02/2014	NA	NA	Mesostigmata	Macrocheliidae	*Macrocheles* sp.	Y	?	Light trap #4
-29.05	167.93	26/11/2014	NA	NA	Mesostigmata	Macrocheliidae	*Macrocheles* sp.	Y	?	Light trap among Norfolk Island pines
-29.02	167.97	10/10/2014	NA	NA	Mesostigmata	Macrocheliidae	*Macrocheles* sp.	Y	?	Light trap Set 10.10.14, collected 11.10.14
-29.03	167.96	20/02/2014	NA	NA	Mesostigmata	Macrocheliidae	*Macrocheles gamma* Halliday, 2000	Y	Y	Light trap #3
-29.02	167.95	20/12/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Macrophthalmothrips neocaledonensis* Bournier, 1997	Y	N	Hand collection from dead branches
-29.05	167.93	25/12/2013	Araucariaceae, Proteaceae	*Grevillea robusta*	Thysanoptera	Phlaeothripidae	*Macrophthalmothrips neocaledonensis*	Y	N	Hand collection from dead wood
-29.02	167.96	29/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Phlaeothripidae	*Macrophthalmothrips neocaledonensis*	Y	N	Hand collection
-29.02	167.96	26/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Phlaeothripidae	*Macrophthalmothrips neocaledonensis*	Y	N	Hand collection from dead branch and moss
-29.02	167.95	23/03/2014	Meliaceae	*Melia azedarach* L.	Thysanoptera	Phlaeothripidae	*Macrophthalmothrips neocaledonensis*	Y	N	Hand collection from dead branch
-29.02	167.96	25/12/2013	Meliaceae	*Toona ciliata*	Thysanoptera	Phlaeothripidae	*Macrophthalmothrips neocaledonensis*	Y	N	Hand collection from dead branch
-29.02	167.96	27/03/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Macrophthalmothrips neocaledonensis*	Y	N	Hand collection
-29.02	167.95	25/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Macrophthalmothrips neocaledonensis*	Y	N	Hand collection
-29.02	167.96	28/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Macrophthalmothrips neocaledonensis*	Y	N	Hand collection from leaf litter
-29.02	167.95	21/12/2013; 25/11/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Macrophthalmothrips neocaledonensis*	Y	N	Hand collection
-29.04	167.93	18/02/2014	Alliaceae	*Allium cepa*	Hemiptera	Aphididae	*Macrosiphum euphorbiae* (Thomas, 1878)	Y	Y	Hand collection
-29.05	167.94	22/09/2013	Brassicaceae	*Brassica oleracea* var. *capitata*	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Hand collection
-29.00	167.93	24/09/2013	Cucurbitaceae	*Cucurbita maxima*	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Sweep net
-29.00	167.93	24/09/2013	Cucurbitaceae	*Cucurbita pepo*	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Hand collection
-29.03	167.98	22/05/2014	Apiaceae	*Daucus carota*	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Beating
-29.03	167.98	14/06/2013	Apiaceae	*Daucus carota*	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Hand collection
-29.03	167.98	25/09/2013	Apiaceae	*Daucus carota*	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Sweep net
-29.03	167.93	19/02/2014	Asteraceae	*Lactuca sativa*	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	14/06/2013	Asteraceae	*Lactuca sativa*	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Hand collection
-29.00	167.93	20/02/2014	Asteraceae	*Lactuca sativa*	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Hand collection
-29.01	167.93	16/10/2014	Musaceae	*Musa* sp.	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Beating
-29.03	167.99	23/12/2012	Solanaceae	*Physalis* sp.	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Beating
-29.05	167.92	7/10/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Beating
-29.04	167.98	9/10/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Beating
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Yellow pan
-29.03	167.98	25/09/2013	Solanaceae	*Solanum melongena*	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Beating
-29.01	167.92	16/10/2014	Asteraceae	*Sonchus oleraceus*	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Hand collection
-29.06	167.94	11/10/2014	Combretaceae	*Terminalia catappa*	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Beating
-29.04	167.99	8/10/2014	Poaceae	Unknown	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Sweep net
-29.04	167.99	25/09/2013	Vitaceae	*Vitis vinifera*	Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Hand collection from leaves
-29.00	167.93	23/12/2012	Various		Hemiptera	Aphididae	*Macrosiphum euphorbiae*	Y	Y	Yellow pan from various vegetable seedlings
-29.06	167.94	11/10/2014	Rosaceae	*Rosa* sp.	Hemiptera	Aphididae	*Macrosiphum rosae* (Linnaeus, 1758)	Y	Y	Hand collection
-29.03	167.99	21/02/2014	Poaceae	*Triticum* sp.	Hemiptera	Cicadellidae	*Maiestas* Distant, 1917	?	?	Hand collection
-29.01	167.92	21/05/2014	Poaceae	Unknown	Hemiptera	Cicadellidae	*Maiestas knighti* Webb & Viraktamath, 2009	Y	Y	Sweep net in cattle pasture
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Hemiptera	Cicadellidae	*Maiestas knighti*	Y	Y	Yellow pan
-29.04	167.99	23/05/2014	Myrtaceae	*Psidium guajava*	Neuroptera	Chrysopidae	*Mallada metastigma* (Tillyard, 1917)	N	N	Beating
-29.04	167.99	14/06/2013	Rutaceae	*Citrus* ×*aurantium*	Neuroptera	Chrysopidae	*Mallada metastigma*	N	N	Hand collection
-29.06	167.95	27/09/2013	NA	NA	Stylommatophora	Microcystidae	*Mathewsoconcha belli* Preston, 1913	N	N	Hand collection from soil
-29.03	167.94	24/05/2014	Asparagaceae	*Cordyline obtecta*	Stylommatophora	Microcystidae	*Mathewsoconcha suteri* (Sykes, 1900)	N	N	Sweep net
-29.03	167.94	11/06/2013	Pittosporaceae	*Pittosporum bracteolatum*	Stylommatophora	Microcystidae	*Mathewsoconcha suteri*	N	N	Hand collection
-29.00	167.93	20/02/2014	Rutaceae	*Citrus* sp.	Stylommatophora	Microcystidae	*Mathewsoconcha suteri*	N	N	Hand collection (mite damage)
-29.04	167.99	25/09/2013	Moraceae	*Ficus carica*	Diptera	Syrphidae	*Melangyna* Verrall, 1901	Y	?	Hand collection
-29.06	167.94	22/09/2013	Plantaginaceae	*Plantago lanceolata*	Diptera	Syrphidae	*Melanostoma apicale* Bigot, 1884	Y	Y	Sweep net

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.05	167.93	13/06/2013	Fabaceae	*Medicago sativa*	Lepidoptera	Tortricidae	*Meroptyas divulsana* (Walker, 1863)	N	Y	Hand collection
-29.02	167.94	22/12/2013	Asparagaceae	*Cordyline obtecta*	Thysanoptera	Merothripidae	*Merothrips brunneus* Ward, 1969	Y	Y	Hand collection from dead leaves
-29.02	167.95	24/12/2013	Celastraceae	*Elaeodendron curtipendulum*	Thysanoptera	Merothripidae	*Merothrips brunneus*	Y	Y	Hand collection from lichens
-29.05	167.93	12/07/2013	Proteaceae	*Grevillea robusta*	Thysanoptera	Merothripidae	*Merothrips brunneus*	Y	Y	Hand collection from dead branch with lichen
-29.05	167.93	28/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Merothripidae	*Merothrips brunneus*	Y	Y	Hand collection from dead tree
-29.01	167.94	22/10/2013	Scrophulariaceae	*Myoporum obscurum*	Thysanoptera	Merothripidae	*Merothrips brunneus*	Y	Y	Hand collection from dead standing branches
-29.01	167.95	22/11/2014	Myrtaceae	*Psidium cattleyanum* var. *cattleyanum*	Thysanoptera	Merothripidae	*Merothrips brunneus*	Y	Y	Hand collection from dead branch
-29.01	167.95	25/12/2012	Unknown	Unknown	Thysanoptera	Merothripidae	*Merothrips brunneus*	Y	Y	Hand collection
-29.02	167.95	23/11/2014	Arecaceae	Unknown	Thysanoptera	Merothripidae	*Merothrips brunneus*	Y	Y	Hand collection from dead palm frond
-29.01	167.94	24/11/2014	Unknown	Unknown	Thysanoptera	Merothripidae	*Merothrips brunneus*	Y	Y	Hand collection
-29.05	167.93	25/03/2014	Poaceae	Unknown	Thysanoptera	Merothripidae	*Merothrips brunneus*	Y	Y	Hand collection from grass bases
-29.02	167.95	21/12/2013	Unknown	Unknown	Thysanoptera	Merothripidae	*Merothrips brunneus*	Y	Y	Hand collection, berlesate from leaf litter
-29.03	167.93	27/03/2014	Various		Thysanoptera	Merothripidae	*Merothrips brunneus*	Y	Y	Hand collection from near greenhouses
-29.01	167.94	25/11/2014	Commelinaceae	*Commelina cyanea*	Thysanoptera	Merothripidae	*Merothrips floridensis* Watson, 1927	Y	Y	Hand collection from leaves
-29.02	167.96	29/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Merothripidae	*Merothrips floridensis*	Y	Y	Hand collection
-29.02	167.96	26/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Merothripidae	*Merothrips floridensis*	Y	Y	Hand collection from dead branch and moss
-29.05	167.93	28/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Merothripidae	*Merothrips floridensis*	Y	Y	Hand collection from dead tree
-29.01	167.94	24/11/2014	Scrophulariaceae	*Myoporum obscurum*	Thysanoptera	Merothripidae	*Merothrips floridensis*	Y	Y	Hand collection from flowers
-29.02	167.96	29/11/2014	Unknown	Unknown	Thysanoptera	Merothripidae	*Merothrips floridensis*	Y	Y	Hand collection from leaf litter
-29.01	167.95	22/11/2014	Unknown	Unknown	Thysanoptera	Merothripidae	*Merothrips floridensis*	Y	Y	Hand collection from dead branches
-29.01	167.94	24/11/2014	Unknown	Unknown	Thysanoptera	Merothripidae	*Merothrips floridensis*	Y	Y	Hand collection from dead wood
-29.01	167.94	30/11/2014	Rutaceae	*Citrus*	Thysanoptera	Merothripidae	*Merothrips floridensis*	Y	Y	Hand collection from dead tree

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.02	167.93	28/11/2014	NA	NA	Hemiptera	Carsidaridae	*Mesohomotoma* cf. *hibisci*	Y	Y	Trapping
-29.02	167.93	25/05/2014	Malvaceae	*Hibiscus tiliaceus* L.	Hemiptera	Carsidaridae	*Mesohomotoma hibisci* (Froggatt, 1901)	Y	Y	Hand collection
-29.04	167.98	27/11/2014	Lauraceae	*Persea americana*	Trombidiformes	Tydeidae	*Metalorrvia* André, 1980	Y	N	Ethanol wash
-29.03	167.94	23/05/2014	NA	NA	Blattodea	Blattidae	*Methana marginalis* (Saussure, 1864)	N	Y	Hand collection
-29.03	167.95	25/09/2013	NA	NA	Blattodea	Blattidae	*Methana marginalis*	N	Y	Hand collection
-29.01	167.93	26/11/2014	Myrtaceae	*Eucalyptus* sp.	Blattodea	Blattidae	*Methana marginalis*	N	Y	Hand collection from under timber
-29.02	167.93	25/02/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Microcryptorhynchus* Lea, 1928	?	?	Hand collection
-29.01	167.93	20/05/2014	Myrtaceae	*Eucalyptus* sp.	Coleoptera	Curculionidae	*Microcryptorhynchus* sp.	?	?	Sweep net from leaf litter and fallen timber
-29.00	167.94	24/02/2014	Hemerocallidaceae	*Phormium tenax*	Coleoptera	Curculionidae	*Microcryptorhynchus* sp.	?	?	Beating
-29.05	167.93	24/09/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Microcryptorhynchus rufimanus* Lea, 1928	N	N	Hand collection from felled tree
-29.01	167.95	25/02/2014	Asparagaceae	*Cordyline obtecta*	Coleoptera	Curculionidae	*Microcryptorhynchus rufimanus*	N	N	Hand collection
-29.00	167.93	20/02/2014	Cucurbitaceae	*Cucumis melo*	Coleoptera	Curculionidae	*Microcryptorhynchus rufimanus*	N	N	Sweep net
-29.01	167.93	26/02/2014	Myrtaceae	*Eucalyptus* sp.	Coleoptera	Curculionidae	*Microcryptorhynchus rufimanus*	N	N	Hand collection
-29.01	167.93	26/11/2014	Myrtaceae	*Eucalyptus* sp.	Coleoptera	Curculionidae	*Microcryptorhynchus rufimanus*	N	N	Sweep net
-29.01	167.93	13/06/2013	Rosaceae	*Malus pumila*	Coleoptera	Curculionidae	*Microcryptorhynchus rufimanus*	N	N	Hand collection
-29.06	167.94	11/10/2014	Oleaceae	*Olea europaea* subsp. *cuspidata*	Coleoptera	Curculionidae	*Microcryptorhynchus rufimanus*	N	N	Beating
-29.12	167.95	15/10/2014	Various		Coleoptera	Curculionidae	*Microcryptorhynchus rufimanus*	N	N	Hand collection
-29.12	167.95	14/10/2014	Cucurbitaceae	*Zehneria baueriana*	Coleoptera	Curculionidae	*Microcryptorhynchus setosus* Lea, 1928	N	N	Hand collection
-29.00	167.94	24/02/2014	Malvaceae	*Lagunaria patersonia*	Coleoptera	Curculionidae	*Microcryptorhynchus setosus*	N	N	Beating
-29.05	167.93	24/09/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Cerambycidae	*Microlamia norfolkensis* Breuning, 1947	N	N	Hand collection
-29.01	167.95	22/12/2012	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Cerambycidae	*Microlamia norfolkensis*	N	N	Hand collection from dead foliage
-29.02	167.93	25/02/2014; 12/10/2014; 27/09/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Cerambycidae	*Microlamia norfolkensis*	N	N	Hand collection from nursery seedlings
-29.12	167.95	14/10/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Cerambycidae	*Microlamia norfolkensis*	N	N	Hand collection and beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.12	167.95	15/10/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Cerambycidae	*Microlamia norfolkensis*	N	N	Beating
-29.12	167.96	15/10/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Cerambycidae	*Microlamia norfolkensis*	N	N	Beating
-29.03	167.99	14/06/2013	Malvaceae	*Lagunaria patersonia*	Coleoptera	Cerambycidae	*Microlamia norfolkensis*	N	N	Hand collection
-29.12	167.96	15/10/2014	Malvaceae	*Lagunaria patersonia*	Coleoptera	Cerambycidae	*Microlamia norfolkensis*	N	N	Beating
-29.01	167.93	13/06/2013	Rosaceae	*Malus pumila*	Coleoptera	Cerambycidae	*Microlamia norfolkensis*	N	N	Hand collection
-29.05	167.93	26/11/2014	NA	NA	Coleoptera	Cerambycidae	*Microlamia norfolkensis*	N	N	Light trap
-29.01	167.92	10/06/2014	NA	NA	Coleoptera	Cerambycidae	*Microlamia norfolkensis*	N	N	LuciLure trap
-29.03	167.96	19/02/2014	NA	NA	Coleoptera	Cerambycidae	*Microlamia norfolkensis*	N	N	Light trap #1
-29.00	167.94	24/02/2014	Hemerocallidaceae	*Phormium tenax*	Coleoptera	Cerambycidae	*Microlamia norfolkensis*	N	N	Beating
-29.06	167.94	25/05/2014	Unknown	Unknown	Coleoptera	Cerambycidae	*Microlamia norfolkensis*	N	N	Hand collection
-29.00	167.94	24/02/2014	Unknown	Unknown	Coleoptera	Cerambycidae	*Microlamia norfolkensis*	N	N	Hand collection from dead wood
-29.05	167.93	20/06/2013	Various		Coleoptera	Cerambycidae	*Microlamia norfolkensis*	?	?	Hand collection
-29.00	167.94	24/02/2014	Malvaceae	*Lagunaria patersonia*	Coleoptera	Cerambycidae	*Microlamia viridis* (Śliński & Escalona, 2013)	N	N	Beating
-29.03	167.94	10/10/2014	Poaceae	*Digitaria* sp.	Coleoptera	Cerambycidae	*Microlamia viridis*	N	N	Sweep net
-29.04	167.99	23/05/2014	Moraceae	*Morus* sp.	Coleoptera	Cerambycidae	*Microlamia* cf. *viridis*	?	?	Beating
-29.03	167.92	22/05/2014	Lamiaceae	*Ocimum basilicum*	Coleoptera	Cerambycidae	*Microlamia* cf. *viridis*	?	?	Beating
-29.05	167.92	24/05/2014	Poaceae	Unknown	Coleoptera	Cerambycidae	*Microlamia* cf. *viridis*	?	?	Sweep net
-29.03	167.99	24/12/2012	Cucurbitaceae	*Cucurbita pepo*	Neuroptera	Hemerobiidae	*Micromus tasmaniae* (Walker, 1860)	N	Y	Yellow pan on bare soil beside cucurbits
-29.05	167.98	17/07/2014	NA	NA	Neuroptera	Hemerobiidae	*Micromus tasmaniae*	N	Y	Bezzilure trap
-29.03	167.98	22/05/2014	Solanaceae	*Nicandra physalodes*	Neuroptera	Hemerobiidae	*Micromus tasmaniae*	N	Y	Beating
-29.03	167.99	24/12/2012	Solanaceae	*Capsicum annuum*	Neuroptera	Hemerobiidae	*Micromus tasmaniae*	N	Y	Beating leaves, flowers
-29.02	167.93	25/02/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Erythraeidae	*Microsmaris* Hirst, 1926	Y	?	Hand collection
-29.00	167.93	20/02/2014	Brassicaceae	*Brassica oleracea* var. *capitata*	Trombidiformes	Erythraeidae	*Microsmaris* sp.	Y	?	Hand collection
-29.03	167.99	20/02/2014	Fabaceae	*Phaseolus vulgaris*	Trombidiformes	Erythraeidae	*Microsmaris* sp.	Y	?	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.12	167.95	14/10/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiiformes	Erythraeidae	*Microsmaris hirsti* Womersley, 1934	Y	Y	Hand collection and beating
-29.12	167.95	14/10/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiiformes	Erythraeidae	*Microsmaris hirsti*	Y	Y	Beating
-29.04	167.94	19/02/2014	Poaceae	Unknown	Trombidiiformes	Erythreidae	*Microsmaris joannae* Hirst, 1928	Y	YY	Sweep net
-29.05	167.95	20/02/2014	NA	NA	Mantodea	Mantidae	*Miomantis caffra* Saussure, 1871	Y	N	Light trap
-29.05	167.93	26/11/2014	NA	NA	Mantodea	Mantidae	*Miomantis caffra*	Y	N	Light trap among Norfolk Island pines
-29.04	167.98	9/10/2014	Poaceae	Unknown	Mantodea	Mantidae	*Miomantis caffra*	Y	N	Hand collection
-29.03	167.9	25/05/2014	Asparagaceae	*Cordyline* sp.	Mantodea	Mantidae	*Miomantis caffra*	Y	N	Hand collection
-29.03	167.97	21/05/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Mitrastethus lateralis* Lea, 1931	N	N	Hand collection from sawn timber
-29.05	167.92	19/05/2014	NA	NA	Coleoptera	Curculionidae	*Mitrastethus lateralis*	N	N	Light trap
-29.01	167.92	16/10/2014	NA	NA	Coleoptera	Curculionidae	*Mitrastethus lateralis*	N	N	Light trap
-29.03	167.97	27/11/2014	NA	NA	Coleoptera	Curculionidae	*Mitrastethus lateralis*	N	N	Light trap
-29.03	167.97	18/02/2014	NA	NA	Coleoptera	Curculionidae	*Mitrastethus lateralis*	N	N	Hand collection from timber billets
-29.03	167.96	19/02/2014	NA	NA	Coleoptera	Curculionidae	*Mitrastethus lateralis*	N	N	Light trap #1
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Curculionidae	*Mitrastethus lateralis*	N	N	Light trap #3
-29.05	167.92	1/12/2014	NA	NA	Coleoptera	Curculionidae	*Mitrastethus lateralis*	N	N	Light trap among Norfolk Island pines
-29.05	167.93	26/11/2014	NA	NA	Coleoptera	Curculionidae	*Mitrastethus lateralis*	N	N	Light trap among Norfolk Island pines
-29.03	167.97	28/11/2014	NA	NA	Coleoptera	Curculionidae	*Mitrastethus lateralis*	N	N	Light trap
-29.03	167.96	25/09/2013	NA	NA	Coleoptera	Curculionidae	*Mitrastethus lateralis*	N	N	Hand collection from timber
-29.02	167.93	25/02/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Mitrastethus lateralis*	N	N	Hand collection from under bark of billets
-29.03	167.97	22/05/2014	NA	NA	Lepidoptera	Noctuidae	*Mocis frugalis* (Fabricius, 1775)	Y	Y	Light trap
-29.01	167.93	27/02/2014	NA		Lepidoptera	Noctuidae	*Mocis frugalis*	N	Y	Light trap in eucalypt forest
-29.01	167.93	20/05/2014	Poaceae	*Paspalum* sp.	Hymenoptera	Formicidae	*Monomorium* Mayr, 1855	Y	?	Sweep net from eucalypt forest
-29.05	167.93	24/09/2013	Araucariaceae	*Araucaria heterophylla*	Hymenoptera	Formicidae	*Monomorium fieldi* Forel, 1910	N	Y	Hand collection from felled tees
-29.02	167.96	10/06/2013	Asparagaceae	*Cordyline obtecta*	Hymenoptera	Formicidae	*Monomorium fieldi*	N	Y	Hand collection
-29.05	167.92	23/05/2014	Convolvulaceae	*Ipomoea cairica*	Hymenoptera	Formicidae	*Monomorium fieldi*	N	Y	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.05	167.97	21/02/2014	Verbenaceae	*Lantana camara*	Hymenoptera	Formicidae	*Monomorium fieldi*	N	Y	Beating
-29.02	167.94	25/05/2014	NA	NA	Hymenoptera	Formicidae	*Monomorium fieldi*	N	Y	Trapping from leaf litter
-29.03	167.94	23/05/2014	Oleaceae	*Nestegis apetala*	Hymenoptera	Formicidae	*Monomorium fieldi*	N	Y	Trapping
-29.03	167.94	24/05/2014	Arecaceae	*Rhopalostylis baueri*	Hymenoptera	Formicidae	*Monomorium fieldi*	N	Y	Hand collection
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Hymenoptera	Formicidae	*Monomorium fieldi*	N	Y	Berlese funnel from leaf litter under palms
-29.02	167.93	25/02/2014	Araucariaceae	*Araucaria heterophylla*	Hymenoptera	Formicidae	*Monomorium fieldi*	N	Y	Hand collection
Unknown	Unknown	25/09/2013	NA	NA	Hymenoptera	Formicidae	*Monomorium floricola* (Jerdon, 1851)	N	Y	from bee hive
-29.12	167.96	15/10/2014	Convolvulaceae	*Ipomoea cairica*	Hymenoptera	Formicidae	*Monomorium rubriceps* Mayr, 1876	N	Y	Beating
-29.12	167.95	14/10/2014	Malvaceae	*Leguinaria patersonia*	Hymenoptera	Formicidae	*Monomorium rubriceps*	N	Y	Hand collection
-29.12	167.96	15/10/2014	Malvaceae	*Leguinaria patersonia*	Hymenoptera	Formicidae	*Monomorium rubriceps*	N	Y	Beating
-29.01	167.95	23/09/2013	Primulaceae	*Myrsine ralstoniae*	Hymenoptera	Formicidae	*Monomorium rubriceps*	N	Y	Observation
-29.05	167.92	24/05/2014	NA	NA	Hymenoptera	Formicidae	*Monomorium rubriceps*	N	Y	Hand collection from ant nest under rock
-29.12	167.95	14/10/2014	NA	NA	Hymenoptera	Formicidae	*Monomorium rubriceps*	N	Y	Hand collection from on rock
-29.06	167.94	22/09/2013	Lauraceae	*Persea americana*	Hymenoptera	Formicidae	*Monomorium rubriceps*	N	Y	Hand collection
-29.03	167.94	24/05/2014	Solanaceae	*Solanum mauritianum*	Hymenoptera	Formicidae	*Monomorium rubriceps*	N	Y	Hand collection
-29.02	167.96	13/10/2014	Meliaceae	*Toona ciliata*	Hymenoptera	Formicidae	*Monomorium rubriceps*	N	Y	Hand collection from sawn log pile
-29.03	167.93	10/10/2014	Unknown	Unknown	Hymenoptera	Formicidae	*Monomorium rubriceps*	N	Y	Hand collection from fallen branch in rainforest area
-29.02	167.96	25/05/2014	Arecaceae	*Howea* sp.	Hymenoptera	Formicidae	*Monomorium rubriceps*	N	Y	Hand collection
-29.05	167.97	21/02/2014	Rutaceae	*Zanthoxylum pinnatum*	Lepidoptera	Tineidae	*Monopis meliorella* (Walker, 1863)	N	Y	Reared from seeds
-29.01	167.93	27/02/2014	NA	NA	Lepidoptera	Tineidae	*Monopis meliorella*	N	Y	Light trap in eucalypt forest
-29.04	167.96	27/02/2014	Various		Coleoptera	Monotomidae	*Monotoma* Herbst, 1793	Y	?	Yellow pan among various young vegetables
-29.00	167.93	24/10/2013; 27/02/2014	Various		Coleoptera	Mordellidae	*Mordella norfolcensis* Lea, 1917	N	N	Yellow pan
-29.00	167.93	26/12/2012	Various, Apiaceae, Brassicaceae	*Apium graveolens*	Coleoptera	Mordellidae	*Mordella norfolcensis*	N	N	Yellow pan near bananas
-29.01	167.93	16/10/2014	Asparagaceae	*Cordyline obtecta*	Coleoptera	Mordellidae	*Mordella norfolcensis*	N	N	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.12	167.95	14/10/2014	Malvaceae	*Lagunaria patersonia*	Coleoptera	Mordellidae	*Mordella norfolcensis*	N	N	Hand collection and beating
-29.05	167.92	1/12/2014	Solanaceae	*Lycium ferocissimum*	Coleoptera	Mordellidae	*Mordella norfolcensis*	N	N	Yellow pan
-29.01	167.93	27/02/2014	NA	NA	Coleoptera	Mordellidae	*Mordella norfolcensis*	N	N	Light trap in eucalypt forest
-29.01	167.95	25/12/2012	Lomariopsidaceae	*Nephrolepis* sp.	Coleoptera	Mordellidae	*Mordella norfolcensis*	N	N	Yellow pan
-29.03	167.99	23/12/2012	Poaceae, Brassicaceae	*Zea mays*, *Brassica oleracea* var. *italica*	Coleoptera	Mordellidae	*Mordella norfolcensis*	N	N	Yellow pan among old corn and young broccoli
-29.03	167.99	22 - 23/03/2014	Various		Coleoptera	Mordellidae	*Mordella norfolcensis*	N	N	Yellow pan among various vegetables
-29.06	167.96	24/06/2014	NA	Unknown	Diptera	Muscidae	*Muscina stabulans* (Fallén, 1817)	N	Y	LuciLure trap
-29.03	167.96	20/02/2014	NA	Unknown	Psocodea	Myopsocidae	*Myopsocus* Hagen, 1866	?	?	Bucket light trap
-29.05	167.92	20/06/2013	Various		Trombidiformes	Erythraeidae	*Myopongia* Southcott, 1961	Y	?	Hand collection
-29.06	167.94	22/09/2013	Plantaginaceae	*Plantago lanceolata*	Trombidiformes	Erythraeidae	*Myopongia* sp.	Y	?	Sweep net
-29.03	167.99	21/02/2014	Poaceae	*Triticum* sp.	Trombidiformes	Erythraeidae	*Myopongia* sp.	Y	?	Hand collection
-29.03	167.99	21/02/2014	Poaceae	*Triticum* sp.	Lepidoptera	Noctuidae	*Mythimna convecta* (Walker, 1857)	Y	?	Hand collection
-29.00	167.93	23/12/2012	Various		Hemiptera	Aphididae	*Myzus persicae* (Sulzer, 1776)	Y	Y	Yellow pan among various vegetable seedlings
-29.04	167.93	18/02/2014	Brassicaceae	*Brassica oleracea* var. *capitata*	Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Sweep net
-29.05	167.94	22/09/2013	Brassicaceae	*Brassica oleracea* var. *capitata*	Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Hand collection
-29.02	167.96	10/06/2013	Brassicaceae	*Brassica oleracea* var. *capitata*	Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Hand collection
-29.03	167.99	25/09/2013	Brassicaceae	*Brassica oleracea* var. *italica*	Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Hand collection
-29.03	167.93	19/02/2014	Brassicaceae	*Brassica oleracea* var. *italica*	Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Hand collection
-29.03	167.98	14/06/2013	Brassicaceae	*Brassica oleracea* var. *italica*	Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Beating
-29.00	167.93	24/09/2013; 20/02/2014; 12/06/2013	Brassicaceae	*Brassica oleracea* var. *italica*	Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Hand collection
-29.03	167.93	26/09/2013	Cucurbitaceae	*Cucumis sativus*	Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Hand collection
-29.03	167.99	24/12/2012	Cucurbitaceae	*Cucurbita pepo*	Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Yellow pan in bare soil beside cucurbits
-29.03	167.98	14/06/2013	Apiaceae	*Daucus carota*	Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.94	10/10/2014	Brassicaceae	*Eruca sativa*	Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Hand collection
-29.00	167.93	26/12/2012	Musaceae, Asteraceae	*Musa* sp., *Lactuca sativa*	Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Yellow pan
-29.00	167.93	26/12/2012	Lamiaceae, Brassicaceae, Musaceae	*Ocimum basilicum*, *Musa* sp.	Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Yellow pan
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Yellow pan
-29.03	167.93	12/06/2013	Solanaceae	*Solanum tuberosum*	Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Hand collection
-29.03	167.99	24/12/2012	Poaceae	*Zea mays*	Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Yellow pan
-29.03	167.99	23/12/2012	Various	*Zea mays*, *Brassica oleracea* var. *italica*	Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Yellow pan among old corn and young broccoli
-29.04	167.96	27/02/2014	Various		Hemiptera	Aphididae	*Myzus persicae*	Y	Y	Yellow pan among various young vegetables
-29.03	167.98	21/05/2014	Poaceae	*Cenchrus purpureus*	Coleoptera	Curculionidae	*Naupactus cervinus* Boheman, 1840	Y	Y	Sweep net
-29.04	167.94	19/02/2014	Rutaceae	*Citrus ×aurantium*	Coleoptera	Curculionidae	*Naupactus cervinus*	Y	Y	Hand collection
-29.04	167.99	22/05/2014	Rutaceae	*Citrus* sp.	Coleoptera	Curculionidae	*Naupactus cervinus*	Y	Y	Beating
-29.03	167.98	14/06/2013	Apiaceae	*Daucus carota*	Coleoptera	Curculionidae	*Naupactus cervinus*	Y	Y	Beating
-29.04	167.94	22/12/2012	Malvaceae	*Hibiscus* sp.	Coleoptera	Curculionidae	*Naupactus cervinus*	Y	Y	Hand collection
-29.05	167.93	13/06/2013	Fabaceae	*Medicago sativa*	Coleoptera	Curculionidae	*Naupactus cervinus*	Y	Y	Hand collection
-29.02	167.96	25/12/2012	NA	NA	Coleoptera	Curculionidae	*Naupactus cervinus*	Y	Y	Beating dead timber
-29.03	167.98	22/05/2014	Solanaceae	*Nicandra physalodes*	Coleoptera	Curculionidae	*Naupactus cervinus*	Y	Y	Beating
-29.03	167.94	19/02/2014	Rosaceae	*Prunus persica* var. *persica*	Coleoptera	Curculionidae	*Naupactus cervinus*	Y	Y	Hand collection
-29.04	167.93	18/02/2014	Caricaceae	*Carica papaya*	Coleoptera	Curculionidae	*Naupactus cervinus*	Y	Y	Hand collection
-29.06	167.94	19/02/2014	NA	NA	Coleoptera	Curculionidae	*Naupactus leucoloma* Boheman, 1840			Hand collection on rock
-29.05	167.92	27/09/2013	Araucariaceae	*Araucaria heterophylla*	Sarcoptiformes	Acaridae	*Neocoleyleion* Samsinak, 1980	Y	N	Hand collection from felled tree
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Cerambycidae	*Neobethelium megacephalum* Blackburn, 1894	N	Y	Light trap #3
-29.01	167.92	16/10/2014	NA	NA	Coleoptera	Cerambycidae	*Neobethelium megacephalum*	N	Y	Light trap
-29.04	167.99	14/06/2013	Rutaceae	*Citrus ×aurantium*	Sarcoptiformes		*Neocalvolia* (Hughes, 1970)	Y	N	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.93	22/02/2014	NA	NA	Lepidoptera	Noctuidae	*Neogalea sunia* (Guenée, 1852)	N	Y	Bucket light trap in orchard
-29.04	167.98	26/02/2014	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Aphididae	*Neophyllaphis araucariae* Takahashi, 1937	Y	Y	Hand collection
-29.02	167.93	25/02/2014	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Aphididae	*Neophyllaphis araucariae*	Y	Y	Hand collection from nursery seedlings
-29.06	167.94	27/02/2014	Araucariaceae	*Araucaria heterophylla*	Hemiptera	Aphididae	*Neophyllaphis araucariae*	Y	Y	Hand collection
-29.02	167.94	3/12/2014	Araucariaceae	*Araucaria heterophylla*	Mesostigmata	Phytoseiidae	*Neoseiulella novaezealandiae* (Collyer, 1964)	Y	Y	Hand collection
-29.04	167.99	27/11/2014	Rutaceae	*Citrus ×aurantium*	Mesostigmata	Phytoseiidae	*Neoseiulella novaezealandiae*	Y	Y	Ethanol wash
-29.00	167.93	24/09/2013	Rutaceae	*Citrus ×aurantium*	Mesostigmata	Phytoseiidae	*Neoseiulella novaezealandiae*	Y	Y	Hand collection
-29.04	167.99	27/11/2014	Rosaceae	*Pyrus communis*	Mesostigmata	Phytoseiidae	*Neoseiulella novaezealandiae*	Y	Y	Ethanol wash
-29.05	167.92	25/11/2014	Araucariaceae	*Araucaria heterophylla*	Mesostigmata	Phytoseiidae	*Neoseiulella novaezealandiae*	Y	Y	Ethanol wash
-29.02	167.93	27/11/2014	Fabaceae	*Trifolium* sp.	Mesostigmata	Phytoseiidae	*Neoseiulus womersleyi* (Schicha, 1975)	Y	Y	Ethanol wash
-29.04	167.94	23/11/2014	Hemerocallidaceae	*Hemerocallis* sp.	Mesostigmata	Phytoseiidae	*Neoseiulus womersleyi*	Y	Y	Ethanol wash
-29.03	167.98	25/09/2013	Solanaceae	*Solanum melongena*	Hemiptera	Aphididae	*Neotoxoptera* Theobald, 1915	Y	?	Beating
-29.03	167.99	25/09/2013	Brassicaceae	*Brassica oleracea* var. *italica*	Hemiptera	Aphididae	*Neotoxoptera* sp.	Y	?	Hand collection
-29.04	167.98	9/10/2014	Anacardiaceae	*Mangifera indica*	Hemiptera	Miridae	*Nesidiocoris* Kirkaldy, 1902	Y	?	Sweep net and beating
-29.04	167.99	8/10/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Miridae	*Nesidiocoris* sp.	Y	?	Beating
-29.01	167.92	16/10/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Miridae	*Nesidiocoris* sp.	Y	?	Hand collection
-29.04	167.99	25/11/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Miridae	*Nesidiocoris tenuis* (Reuter, 1895)	Y	Y	Hand collection
-29.04	167.99	25/11/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Miridae	*Nesidiocoris tenuis*	Y	Y	Hand collection
-29.02	167.96	10/06/2013	Solanaceae	*Solanum lycopersicum*	Hemiptera	Miridae	*Nesidiocoris tenuis*	Y	Y	Aspirator
-29.00	167.93	25/11/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Miridae	*Nesidiocoris tenuis*	Y	Y	Sweep net
-29.00	167.93	27/02/2014	Various	NA	Hemiptera	Miridae	*Nesidiocoris tenuis*	Y	Y	Yellow pan among various young vegetables
-29.03	167.96	19/02/2014	NA	NA	Lepidoptera	Arctiidae	*Nesiotica cladara* Turner, 1917	N	N	Light trap

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.95	23/05/2014	NA	NA	Lepidoptera	Arctiidae	*Nesiotica cladara*	N	N	Light trap
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Pseudoscorpiones	Chernetidae	*Nesochernes gracilis norfolkensis* Beier, 1976	N	N	Berlese funnel from leaf litter under palms
-29.03	167.94	26/05/2014	NA	NA	Dermaptera	Spongiphoridae	*Nesogaster halli* Hincks, 1949	Y	Y	Light trap Set 25.5.2014, collected 26.5.2014
-29.05	167.98	10/10/2014	NA	NA	Dermaptera	Spongiphoridae	*Nesogaster halli*	Y	Y	Light trap Set 9.10.14, collected 10.10.14
-29.02	167.97	22/09/2013	Araceae	*Colocasia esculenta*	Dermaptera	Spongiphoridae	*Nesogaster halli*	Y	Y	Hand collection
-29.04	167.99	25/11/2014	Arecaceae, Fabaceae, Araceae	NA	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus* (Bagnall, 1916)	Y	Y	Hand collection from dead palm leaves, dead pea pods
-29.01	167.94	11/07/2013	Malvaceae	*Abutilon julianae* Endl.	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.02	167.95	21/12/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.02	167.94	26/03/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from leaf litter
-29.01	167.94	25/11/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from terminal branches
-29.02	167.95	23/12/2012	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.03	167.99	22/03/2014	Poaceae	*Cenchrus purpureus*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.02	167.94	22/12/2013	Rutaceae	*Citrus ×jambhiri*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from dead branches
-29.03	167.99	21/12/2013	Rubiaceae	*Coffea* sp.	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.01	167.94	11/07/2013	Asparagaceae	*Cordyline obtecta*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from dead leaves
-29.02	167.96	25/03/2014	Phormiaceae	*Dianella* sp.	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.03	167.99	21/02/2014	Fabaceae	*Glycine max*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.02	167.96	27/12/2012	Proteaceae, Arecaceae	*Grevillea robusta*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from dead leaves
-29.04	167.99	23/11/2014	Malvaceae	*Hibiscus insularis*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from dead wood, dead seed heads
-29.01	167.95	22/11/2014	Malvaceae	*Hibiscus* sp.	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from dead twigs and leaves
-29.03	167.99	22/12/2012	Convolvulaceae	*Ipomoea* sp.	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from dead stem and leaves, larvae present
-29.00	167.94	24/02/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Beating
-29.04	167.96	25/10/2013	Verbenaceae	*Lantana camara*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.97	18/02/2014	Verbenaceae	*Lantana camara*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Beating
-29.05	167.93	29/11/2014	Fabaceae	*Medicago sativa*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from flowers
-29.04	167.96	10/10/2014	Musaceae	*Musa* sp.	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Beating
-29.01	167.94	22/10/2013	Scrophulariaceae	*Myoporum obscurum*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from dead standing branches
-29.03	167.99	9/07/2013	NA	NA	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.00	167.94	26/03/2014	Oleaceae, Poaceae	*Olea europaea* subsp. *cuspidata*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from grass litter
-29.00	167.94	24/03/2014	Poaceae, Oleaceae	*Olea europaea* subsp. *cuspidata*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from grasses, olive litter
-29.03	167.99	9/07/2013	Various, Solanaceae, Asteraceae	*Physalis* sp., *Bidens pilosa*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.01	167.94	23/12/2013	Arecaceae	*Rhopalostylis baueri*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from dead frond
-29.02	167.96	25/12/2013	Meliaceae	*Toona ciliata*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from dead branch
-29.03	167.99	22/03/2014	Meliaceae, Rubiaceae	*Toona* sp., *Coffea* sp.	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.03	167.99	22/12/2012	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.02	167.96	9/07/2013	Various	Unknown	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.01	167.92	26/11/2014	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.01	167.95	26/12/2012	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.00	167.94	24/03/2014	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.02	167.95	21/12/2012	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from base of grass, larvae present
-29.03	167.93	22/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.02	167.96	26/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.02	167.96	27/12/2012	Arecaceae	Unknown	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from dead leaves
-29.02	167.95	22/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from dead twigs and leaves
-29.03	167.93	22/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from dead wood
-29.02	167.96	25/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from dead wood
-29.02	167.96	26/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection, berlesate from leaf litter

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.94	24/03/2014	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from litter
-29.01	167.94	23/12/2012	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection from old dead branch
-29.05	167.96	9/10/2014	Vitaceae	*Vitis vinifera*	Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Beating
-29.00	167.93	22/12/2013	Various		Thysanoptera	Phlaeothripidae	*Neosthrips propinquus*	Y	Y	Hand collection
-29.05	167.93	24/09/2013	Araucariaceae	*Araucaria heterophylla*	Araneae	Theridiidae	*Nesticodes rufipes* (Lucas, 1846)	Y	Y	Hand collection
-29.03	167.95	7/10/2014	NA	NA	Hymenoptera	Ichneumonidae	*Netelia* Gray, 1860	?	?	Light trap
-29.01	167.94	24/02/2014	NA	NA	Hymenoptera	Ichneumonidae	*Netelia* sp.	?	?	Light trap
-29.04	167.99	23/05/2014	Rutaceae	*Citrus* sp.	Hemiptera	Pentatomidae	*Nezara viridula* (Linnaeus, 1758)	N	Y	Sweep net
-29.03	167.99	21/02/2014	Fabaceae	*Glycine max*	Hemiptera	Pentatomidae	*Nezara viridula*	N	Y	Hand collection
-29.03	167.99	20/02/2014	Solanaceae	*Nicandra physaloides*	Hemiptera	Pentatomidae	*Nezara viridula*	N	Y	Sweep net
-29.03	167.98	14/06/2013	Solanaceae	*Solanum melongena*	Hemiptera	Pentatomidae	*Nezara viridula*	N	Y	Hand collection
-29.04	167.99	25/11/2014	Solanaceae	*Solanum tuberosum*	Hemiptera	Pentatomidae	*Nezara viridula*	N	Y	Hand collection
-29.03	167.99	25/09/2013	Poaceae	*Zea mays*	Hemiptera	Pentatomidae	*Nezara viridula*	N	Y	Hand collection from hydroponics
-29.03	167.93	19/02/2014	Brassicaceae	*Brassica oleracea* var. *italica*	Hemiptera	Pentatomidae	*Nezara viridula*	N	Y	Hand collection
-29.03	167.95	7/10/2014	NA	NA	Diptera	Dolichopodidae	*Nothorhaphium aemulans* (Becker, 1922)	N	Y	Light trap
-29.00	167.93	26/12/2012	Musaceae, Asteraceae	*Musa* sp., *Lactuca sativa*	Diptera	Dolichopodidae	*Nothorhaphium aemulans*	N	Y	Yellow pan
-29.03	167.93	26/09/2013	Bromeliaceae	*Ananas comosus*	Hymenoptera	Formicidae	*Nylanderia obscura* (Mayr, 1862)	N	Y	Hand collection
-29.05	167.93	11/10/2014	Araucariaceae	*Araucaria heterophylla*	Hymenoptera	Formicidae	*Nylanderia obscura*	N	Y	Hand collection from felled tree #1
-29.02	167.93	12/10/2014	Araucariaceae	*Araucaria heterophylla*	Hymenoptera	Formicidae	*Nylanderia obscura*	N	Y	Hand collection from felled tree #4 (workers)
-29.03	167.94	23/05/2014	Asteraceae	*Crassocephalum crepidioides* (Benth.) S. Moore	Hymenoptera	Formicidae	*Nylanderia obscura*	N	Y	Trapping
-29.02	167.96	25/05/2014	Arecaceae	*Howea* sp.	Hymenoptera	Formicidae	*Nylanderia obscura*	N	Y	Hand collection
-29.05	167.97	24/02/2014	Tropaeolaceae	*Tropaeolum* L.	Hymenoptera	Formicidae	*Nylanderia obscura*	N	Y	Hand collection
-29.02	167.97	22/09/2013	NA		Hymenoptera	Formicidae	*Nylanderia obscura*	N	Y	Hand collection
-29.01	167.93	13/06/2013	Rubiaceae	*Coffea* sp.	Hymenoptera	Formicidae	*Nylanderia obscura group*	?	?	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.93	26/09/2013	Rubiaceae	*Coffea* sp.	Hymenoptera	Formicidae	*Nylanderia vaga* (Forel, 1901)	N	Y	Hand collection
-29.03	167.94	24/05/2014	Asparagaceae	*Cordyline obtecta*	Hymenoptera	Formicidae	*Nylanderia vaga*	N	Y	Sweep net
-29.05	167.92	24/05/2014	NA	NA	Hymenoptera	Formicidae	*Nylanderia vaga*	N	Y	Hand collection from ant nest under rock
-29.01	167.93	20/05/2014	Poaceae	*Paspalum* sp.	Hymenoptera	Formicidae	*Nylanderia vaga*	N	Y	Sweep net in eucalypt forest
-29.03	167.99	23/05/2014	Euphorbiaceae	*Ricinus communis*	Hymenoptera	Formicidae	*Nylanderia vaga*	N	Y	Beating
-29.03	167.94	10/10/2014	Unknown	Unknown	Hymenoptera	Formicidae	*Nylanderia vaga*	N	Y	Hand collection
-29.04	167.99	25/09/2013	Vitaceae	*Vitis vinifera*	Hymenoptera	Formicidae	*Nylanderia vaga*	N	Y	Hand collection from leaves
-29.01	167.93	16/10/2014	Poaceae	*Cenchrus purpureus*	Hymenoptera	Formicidae	*Nylanderia vaga*	N	Y	Hand collection
-29.05	167.97	24/02/2014	Asteraceae	*Conyza* sp.	Hemiptera	Orsillidae	*Nysius caledoniae* Distant, 1920	Y	Y	Hand collection
-29.03	167.93	19/02/2014	Asteraceae	*Lactuca sativa*	Hemiptera	Orsillidae	*Nysius caledoniae*	Y	Y	Beating
-29.03	167.99	24/12/2012	Musaceae	*Musa* sp.	Hemiptera	Orsillidae	*Nysius caledoniae*	Y	Y	Yellow pan
-29.00	167.93	24/12/2012	Lamiaceae	*Ocimum basilicum*	Hemiptera	Orsillidae	*Nysius caledoniae*	Y	Y	Beating from flowering plants
-29.03	167.93	19/02/2014	Bromeliaceae	*Ananas comosus*	Hemiptera	Orsillidae	*Nysius caledoniae*	Y	Y	Hand collection
-29.01	167.93	13/06/2013	Verbenaceae	*Lantana camara*	Hemiptera	Orsillidae	*Nysius vinitor* Bergroth, 1891	N	Y	Hand collection
-29.05	167.93	13/06/2013	Fabaceae	*Medicago sativa*	Hemiptera	Orsillidae	*Nysius vinitor*	N	Y	Sweep net
-29.03	167.99	14/06/2013	Cucurbitaceae	*Cucumis sativus*	Hemiptera	Orsillidae	*Nysius vinitor*	N	Y	Hand collection
-29.05	167.94	22/09/2013	Araucariaceae	*Araucaria heterophylla*	Hymenoptera	Formicidae	*Ochetellus* Shattuck, 1992	?	?	Hand collection from timber
-29.02	167.93	27/09/2013	Araucariaceae	*Araucaria heterophylla*	Hymenoptera	Formicidae	*Ochetellus glaber* (Mayr, 1862)	N	Y	Hand collection
-29.12	167.95	14/10/2014	Asteraceae	*Bidens pilosa*	Hymenoptera	Formicidae	*Ochetellus glaber*	N	Y	Hand collection
-29.04	167.99	25/09/2013	Caricaceae	*Carica papaya*	Hymenoptera	Formicidae	*Ochetellus glaber*	N	Y	Hand collection
-29.03	167.98	21/05/2014	Poaceae	*Cenchrus purpureus*	Hymenoptera	Formicidae	*Ochetellus glaber*	N	Y	Sweep net
-29.03	167.93	26/09/2013	Cucurbitaceae	*Cucumis sativus*	Hymenoptera	Formicidae	*Ochetellus glaber*	N	Y	Hand collection
-29.03	167.99	22/05/2014	Cucurbitaceae	*Cucumis sativus*	Hymenoptera	Formicidae	*Ochetellus glaber*	N	Y	Beating
-29.03	167.97	7/10/2014	Myrtaceae	*Eucalyptus* sp.	Hymenoptera	Formicidae	*Ochetellus glaber*			Hand collection from nest (larvae, pupae, workers, alates)

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.02	167.97	22/09/2013	Malvaceae	*Leguminaria patersonia*	Hymenoptera	Formicidae	*Ochetellus glaber*	N	Y	Hand collection
-29.00	167.93	24/09/2013	Anacardiaceae	*Mangifera indica*	Hymenoptera	Formicidae	*Ochetellus glaber*	N	Y	Hand collection
-29.00	167.93	20/02/2014	Musaceae	*Musa* sp.	Hymenoptera	Formicidae	*Ochetellus glaber*	N	Y	Sweep net
-29.03	167.97	18/02/2014	NA	NA	Hymenoptera	Formicidae	*Ochetellus glaber*	N	Y	Hand collection from timber
-29.04	167.99	25/09/2013	Rosaceae	*Prunus persica* var. *persica*	Hymenoptera	Formicidae	*Ochetellus glaber*	N	Y	Hand collection
-29.03	167.93	19/02/2014	Solanaceae	*Solanum lycopersicum*	Hymenoptera	Formicidae	*Ochetellus glaber*	N	Y	Beating
-29.04	167.97	9/10/2014	Unknown	Unknown	Hymenoptera	Formicidae	*Ochetellus glaber*	N	Y	Hand collection from sawn timber
-29.04	167.99	25/09/2013	Vitaceae	*Vitis vinifera*	Hymenoptera	Formicidae	*Ochetellus glaber*	N	Y	Hand collection from leaves
-29.03	167.99	25/09/2013	Poaceae	*Zea mays*	Hymenoptera	Formicidae	*Ochetellus glaber*	N	Y	Hand collection
-29.03	167.93	19/02/2014	Bromeliaceae	*Ananas comosus*	Hymenoptera	Formicidae	*Ochetellus glaber*	N	Y	Hand collection
-29.05	167.92	18/02/2014	Verbenaceae	*Lantana camara*	Coleoptera	Chrysomelidae	*Octotoma scabripennis* Guérin-Méneville, 1844	Y	Y	Hand collection
-29.05	167.93	12/10/2014	Verbenaceae	*Lantana camara*	Coleoptera	Chrysomelidae	*Octotoma scabripennis*	Y	Y	Hand collection
-29.02	167.93	25/02/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Bdellidae	*Odontoscirus* Thor, 1913	Y	Y	Hand collection from nursery seedlings
-29.01	167.93	21/05/2014	Myrtaceae	*Psidium cattleyanum* var. *cattleyanum*	Trombidiformes	Bdellidae	*Odontoscirus* sp.	Y	Y	Beating in eucalypt forest
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Trombidiformes	Bdellidae	*Odontoscirus* sp.	Y	Y	Berlese funnel from leaf litter under palms
-29.06	167.94	11/10/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Bdellidae	*Odontoscirus* sp.	Y	Y	Beating
-29.03	167.94	24/05/2014	Arecaceae	*Rhopalostylis baueri*	Trombidiformes	Bdellidae	*Odontoscirus harpax* Atyeo, 1963	Y	Y	Hand collection
-29.015002	167.95	25/02/2014	Myrtaceae	*Psidium cattleyanum* var. *cattleyanum*	Trombidiformes	Bdellidae	*Odontoscirus harpax*	Y	Y	Hand collection
-29.01	167.95	23/09/2013	Urticaceae	*Boehmeria australis*	Mesostigmata	Phytoseiidae	*Obiseius* Ehara, 1967	Y	?	Hand collection
-29.03	167.99	20/02/2014	Fabaceae	*Phaseolus vulgaris*	Lepidoptera	Crambidae	*Omiodes diemenalis* (Guenée, 1854)	N	Y	Hand collection
-29.06	167.94	26/11/2014	NA	NA	Coleoptera	Scarabaeidae	*Onitis vanderkelleni* Lansberge, 1886	N	Y	Light trap
-29.05	167.95	12/10/2014	NA	NA	Coleoptera	Scarabaeidae	*Onitis vanderkelleni*	N	Y	Light trap
-29.01	167.93	3/12/2014; 27/02/2014	NA	NA	Coleoptera	Scarabaeidae	*Onitis vanderkelleni*	N	Y	Light trap in eucalypt forest

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.96	23/02/2014	NA	NA	Coleoptera	Scarabaeidae	*Onitis vanderkelleni*	N	Y	Light trap#4
-29.03	167.96	19/02/2014	NA	NA	Coleoptera	Scarabaeidae	*Onitis vanderkelleni*	N	Y	Light trap #1
-29.05	167.95	20/02/2014	NA	NA	Coleoptera	Scarabaeidae	*Onitis vanderkelleni*	N	Y	Light trap #2
-29.05	167.93	26/11/2014	NA	NA	Coleoptera	Scarabaeidae	*Onitis vanderkelleni*	N	Y	Light trap in Norfolk Island pines
-29.05	167.92	1/12/2014	NA	NA	Coleoptera	Scarabaeidae	*Onitis vanderkelleni*	N	Y	Light trap in Norfolk Island pines
-29.02	167.94	2/12/2014	NA	NA	Coleoptera	Scarabaeidae	*Onitis vanderkelleni*	N	Y	Light trap among Norfolk Island pines
-29.01	167.93	21/05/2014	NA	NA	Coleoptera	Scarabaeidae	*Onitis vanderkelleni*	N	Y	Light trap
-29.03	167.97	22/05/2014	NA	NA	Coleoptera	Scarabaeidae	*Onitis vanderkelleni*	N	Y	Light trap Set 20.5.2014, collected 21.5.2014, eucalypt forest
-29.04	167.94	19/02/2014	NA	NA	Coleoptera	Scarabaeidae	*Onitis vanderkelleni*	N	Y	Hand collection from tyre with water
-29.00	167.93	20/02/2014	Rutaceae	*Citrus* ×*aurantium*	Coleoptera	Scarabaeidae	*Onitis vanderkelleni*	N	Y	Hand collection
-29.03	167.97	7/10/2014	Polygalaceae	*Polygala myrtifolia*	Coleoptera	Scarabaeidae	*Onthophagus nigriventris* d'Orbigny, 1902	N	Y	Sweep net
-29.01	167.95	23/05/2014	NA	NA	Lepidoptera	Noctuiidae	*Ophiusa tirhaca* (Cramer, 1777)	Y	N	Light trap
-29.01	167.93	27/02/2014	NA	NA	Lepidoptera	Tineidae	*Opogona psola* Bradley, 1956	N	N	Light trap in eucalypt forest
-29.00	167.93	22/02/2014	NA	NA	Lepidoptera	Tineidae	*Opogona psola*	N	N	Bucket light trap in orchard
-29.05	167.95	20/02/2014	NA	NA	Lepidoptera	Tineidae	*Opogona psola*	N	N	Light trap
Unknown	Unknown	3/04/2014	Phasianidae	*Gallus gallus* (Linnaeus, 1758)	Mesostigmata	Macronyssidae	*Ornithonyssus bursa* (Berlese, 1888)	Y	Y	Hand collection
-29.03	167.99	23/12/2012	Solanaceae	*Physalis* sp.	Hemiptera	Cicadellidae	*Orosius* Distant, 1918	?	?	Beating
-29.00	167.93	26/12/2012	Various, Apiaceae, Brassicaceae	*Apium graveolens*	Hemiptera	Cicadellidae	*Orosius argentatus* (Evans, 1938)			Yellow pan near bananas
-29.03	167.99	24/12/2012	Cucurbitaceae	*Cucurbita pepo*	Hemiptera	Cicadellidae	*Orosius argentatus*	N	Y	Yellow pan on bare soil beside cucurbits
-29.00	167.93	20/02/2014	Convolvulaceae	*Ipomoea batatas*	Hemiptera	Cicadellidae	*Orosius argentatus*	N	Y	Hand collection
-29.00	167.93	26/12/2012	Musaceae, Asteraceae	*Musa* sp., *Lactuca sativa*	Hemiptera	Cicadellidae	*Orosius argentatus*	N	Y	Yellow pan
-29.03	167.99	23/12/2012	Solanaceae	*Solanum lycopersicum*	Hemiptera	Cicadellidae	*Orosius argentatus*	N	Y	Yellow pan
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Hemiptera	Cicadellidae	*Orosius argentatus*	N	Y	Yellow pan
-29.01	167.92	21/05/2014	Poaceae	Unknown	Hemiptera	Cicadellidae	*Orosius argentatus*	N	Y	Sweep net in cattle pasture

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	24/12/2012	Poaceae	*Zea mays*	Hemiptera	Cicadellidae	*Orosius argentatus*	N	Y	Yellow pan
-29.03	167.99	23/12/2012	Poaceae, Brassicaceae	*Zea mays*, *Brassica oleracea* var. *italica*	Hemiptera	Cicadellidae	*Orosius argentatus*	N	Y	Yellow pan among old corn and young broccoli
-29.00	167.93	23/12/2012	Various		Hemiptera	Cicadellidae	*Orosius argentatus*	N	Y	Yellow pan among various vegetables
-29.03	167.97	7/10/2014	Araucariaceae	*Araucaria heterophylla*	Stylommatophora	Zonitidae	*Oxychilus alliarius* (Miller, 1822)	Y	Y	Hand collection
-29.03	167.99	23/10/2013	Various		Diptera	Sarcophagidae	*Oxysarcodexia varia* (Walker, 1836)	N	Y	Yellow pan among various young vegetables
-29.00	167.93	26/12/2012	Various, Apiaceae, Brassicaceae	*Apium graveolens*	Diptera	Sarcophagidae	*Oxysarcodexia varia*	N	Y	Yellow pan near bananas
-29.00	167.93	20/02/2014	Convolvulaceae	*Ipomoea batatas*	Diptera	Sarcophagidae	*Oxysarcodexia varia*	N	Y	Hand collection
-29.06	167.96	24/06/2014; 02/07/2014	NA	NA	Diptera	Sarcophagidae	*Oxysarcodexia varia*	N	Y	LuciLure trap
-29.05	167.93	10/06/2014; 02/07/2014; 24/06/2014	NA	NA	Diptera	Sarcophagidae	*Oxysarcodexia varia*	N	Y	Bezzilure trap
-29.05	167.97	17/07/2014; 02/07/2014	NA	NA	Diptera	Sarcophagidae	*Oxysarcodexia varia*	N	Y	Bezzilure trap
-29.03	167.93	24/07/2014; 02/07/2014; 10/06/2014	NA	NA	Diptera	Sarcophagidae	*Oxysarcodexia varia*	N	Y	Bezzilure trap
-29.03	167.98	2/07/2014; 29/05/2014; 2/06/2014	NA	NA	Diptera	Sarcophagidae	*Oxysarcodexia varia*	N	Y	LuciLure trap
-29.02	167.97	2/06/2014	NA	NA	Diptera	Sarcophagidae	*Oxysarcodexia varia*	N	Y	LuciLure trap
-29.01	167.92	28/05/2014	NA	NA	Diptera	Sarcophagidae	*Oxysarcodexia varia*	N	Y	LuciLure trap
-29.01	167.56	2/07/2014	NA	NA	Diptera	Sarcophagidae	*Oxysarcodexia varia*	N	Y	Blowfly trap
-29.00	167.93	26/12/2012	Various, Brassicaceae, Musaceae	*Ocimum basilicum*, *Musa* sp.	Diptera	Sarcophagidae	*Oxysarcodexia varia*	N	Y	Yellow pan
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Diptera	Sarcophagidae	*Oxysarcodexia varia*	N	Y	Yellow pan
-29.03	167.99	21/02/2014	Poaceae	*Triticum* sp.	Diptera	Sarcophagidae	*Oxysarcodexia varia*	N	Y	Hand collection
-29.04	167.99	23 - 24/03/2014	Various		Diptera	Sarcophagidae	*Oxysarcodexia varia*	N	Y	Yellow pan among various vegetables
-29.05	167.92	28/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Phlaeothripidae	*Ozothrips jamus* Mound & Palmer, 1983	Y	N	Hand collection from dead tree
-29.04	167.99	25/11/2014	Rutaceae	*Citrus* sp.	Thysanoptera	Phlaeothripidae	*Ozothrips jamus*	Y	N	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.12	167.95	14/10/2014	Rubiaceae	*Coprosma baueri*	Araneae	Thomisidae	*Ozyptila* Simon, 1864	Y	N	Beating
-29.05	167.92	3/12/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Pachycotes kuscheli* Scheidl, 1972	N	N	Hand collection from felled tree #2
-29.02	167.93	12/10/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Pachycotes kuscheli*	N	N	Hand collection from felled tree #5
-29.04	167.94	23/09/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Pachycotes kuscheli*	N	N	Hand collection from sawn timber
-29.05	167.93	11/10/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Pachycotes kuscheli*	N	N	Hand collection from felled tree #1
-29.05	167.95	20/02/2014	NA	NA	Coleoptera	Curculionidae	*Pachycotes kuscheli*	N	N	Light trap
-29.03	167.96	19/02/2014	NA	NA	Coleoptera	Curculionidae	*Pachycotes kuscheli*	N	N	Light trap
-29.01	167.92	16/10/2014	NA	NA	Coleoptera	Curculionidae	*Pachycotes kuscheli*	N	N	Light trap
-29.03	167.96	19/02/2014	NA	NA	Coleoptera	Curculionidae	*Pachycotes kuscheli*	N	N	Light trap #1
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Curculionidae	*Pachycotes kuscheli*	N	N	Light trap #3
-29.05	167.93	26/11/2014	NA	NA	Coleoptera	Curculionidae	*Pachycotes kuscheli*	N	N	Light trap among Norfolk Island pines
-29.05	167.92	1/12/2014; 19/05/2017	NA	NA	Coleoptera	Curculionidae	*Pachycotes kuscheli*	N	N	Light trap among Norfolk Island pines
-29.03	167.97	27/11/2014	NA	NA	Coleoptera	Curculionidae	*Pachycotes kuscheli*	N	N	Light trap
-29.03	167.96	25/09/2013	NA	NA	Coleoptera	Curculionidae	*Pachycotes kuscheli*	N	N	Hand collection from timber
-29.05	167.92	17/02/2014	Unknown	Unknown	Coleoptera	Curculionidae	*Pachycotes kuscheli*	N	N	Hand collection from timber
-29.02	167.93	25/02/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Pachycotes kuscheli*	N	N	Hand collection from under bark of billets
-29.05	167.92	17/02/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Pachyops insularis* (Lea, 1927)	N	N	Hand collection
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Architaenioglossa	Diplommatinidae	*Palmatina quintali* Iredale, 1945	N	N	Berlese funnel from leaf litter under palms
-29.01	167.94	24/02/2014	NA	NA	Lepidoptera	Crambidae	*Palpita unionalis* (Hübner, 1796)	N	N	Light trap
-29.01	167.95	23/05/2014	NA	NA	Lepidoptera	Crambidae	*Palpita unionalis*	N	N	Light trap
-29.03	167.97	7/10/2014	Araucariaceae	*Araucaria heterophylla*	Blattodea	Blaberidae	*Panesthia cribrata* Saussure, 1864	N	Y	Hand collection
-29.05	167.92	24/05/2014	Araucariaceae	*Araucaria heterophylla*	Blattodea	Blaberidae	*Panesthia cribrata*	N	Y	Hand collection from fallen logs
-29.04	167.94	28/02/2014	NA	NA	Lepidoptera	Noctuidae	*Pantydia sparsa* Guenée, 1852	N	Y	Light trap
-29.03	167.96	19/02/2014	NA	NA	Lepidoptera	Noctuidae	*Pantydia sparsa*	N	Y	Light trap
-29.01	167.93	27/02/2014	NA	NA	Lepidoptera	Noctuidae	*Pantydia sparsa*	N	Y	Light trap from eucalypt forest

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.93	22/02/2014	NA	NA	Lepidoptera	Noctuidae	*Pantydia sparsa*	N	Y	Bucket light trap from orchard
-29.03	167.97	22/05/2014	NA	NA	Lepidoptera	Noctuidae	*Pantydia sparsa*	N	Y	Light trap
-29.05	167.95	20/02/2014	NA	NA	Lepidoptera	Noctuidae	*Pantydia sparsa*	N	Y	Light trap
-29.03	167.97	18/02/2014	NA	NA	Coleoptera	Cerambycidae	*Papuandra norfolkensis* Santos-Silva, Heffern & Matsuda, 2010	N	N	Hand collection from timber billets
-29.05	167.92	24/05/2014	Poaceae	Unknown	Trombidiformes	Acariphenacidae	*Paracarophenax* Cross, 1965 sp. nov.?	Y	N	Sweep net
-29.04	167.96	26/11/2013	NA	NA	Hymenoptera	Vespidae	*Paralastor* cf. *vulpinus*	N	Y	Hand collection
-29.03	167.99	23/10/2013	Various		Diptera	Sepsidae	*Parapalaeosepsis plebeia* (De Meijere, 1906)	N	Y	Yellow pan among various young vegetables
-29.02	167.93	24/10/2013	Various		Diptera	Sepsidae	*Parapalaeosepsis plebeia*	N	Y	Yellow pan among various young vegetables
-29.00	167.93	23 - 24/03/2014	Various		Diptera	Sepsidae	*Parapalaeosepsis plebeia*	N	Y	Yellow pan
-29.03	167.99	24/12/2012	Musaceae	*Musa* sp.	Diptera	Sepsidae	*Parapalaeosepsis plebeia*	N	Y	Yellow pan
-29.00	167.93	26/12/2012	Musaceae, Asteraceae	*Musa* sp., *Lactuca sativa*	Diptera	Sepsidae	*Parapalaeosepsis plebeia*	N	Y	Yellow pan
-29.06	167.96	24/06/2014; 02/07/2014	NA	NA	Diptera	Sepsidae	*Parapalaeosepsis plebeia*	N	Y	LuciLure trap
-29.03	167.93	2/07/2014	NA	NA	Diptera	Sepsidae	*Parapalaeosepsis plebeia*	N	Y	Blowfly trap
-29.00	167.93	26/12/2012	Lamiaceae, Brassicaceae, Musaceae	*Ocimum basilicum*, *Musa* sp.	Diptera	Sepsidae	*Parapalaeosepsis plebeia*	N	Y	Yellow pan
-29.04	167.99	23 - 24/03/2014	Various		Diptera	Sepsidae	*Parapalaeosepsis plebeia*	N	Y	Yellow pan among various vegetables
-29.02	167.96	10/06/2013	Solanaceae	*Solanum melongena*	Hemiptera	Coccidae	*Parasaissetia nigra* (Nietner, 1861)	Y	Y	Hand collection
-29.03	167.98	21/05/2014	Poaceae	*Cenchrus purpureus*	Coleoptera	Phalacridae	*Parasemus* Guillebeau, 1894	Y	?	Sweep net
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Araneae	Theridiidae	*Parasteatoda* Archer, 1946	Y	Y	Berlese funnel from leaf litter under palms
-29.03	167.97	22/05/2014	Araucariaceae	*Araucaria heterophylla*	Hymenoptera	Formicidae	*Paratrechina longicornis* (Latreille, 1802)	N	Y	Hand collection from sawn timber
-29.03	167.97	25/09/2013	Araucariaceae	*Araucaria heterophylla*	Hymenoptera	Formicidae	*Paratrechina longicornis*	N	Y	Hand collection from timber
-29.04	167.96	9/10/2014	Caricaceae	*Carica papaya*	Hymenoptera	Formicidae	*Paratrechina longicornis*	N	Y	Beating
-29.02	167.97	22/09/2013	NA	NA	Hymenoptera	Formicidae	*Paratrechina longicornis*	N	Y	Hand collection from soil
-29.06	167.95	27/09/2013	NA	NA	Hymenoptera	Formicidae	*Paratrechina longicornis*	N	Y	Hand collection from soil

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.02	167.97	22/09/2013	NA	NA	Hymenoptera	Formicidae	*Paratrechina longicornis*	N	Y	Hand collection
-29.03	167.96	25/09/2013	NA	NA	Hymenoptera	Formicidae	*Paratrechina longicornis*	N	Y	Hand collection from timber
-29.03	167.97	18/02/2014	NA	NA	Hymenoptera	Formicidae	*Paratrechina longicornis*	N	Y	Hand collection from timber
-29.03	167.97	7/10/2014	Araucariaceae	*Araucaria heterophylla*	Hymenoptera	Formicidae	*Paratrechina longicornis*	N	Y	Hand collection
-29.03	167.95	21/09/2013	NA	NA	Araneae	Lycosidae	*Pardosa paludicola* (Clerck, 1757)	Y	N	Hand collection
-29.00	167.93	26/12/2012	Musaceae, Asteraceae	*Musa* sp., *Lactuca sativa*	Diptera	Dolichopodidae	*Parentia vulgaris* Bickel, 1994	N	Y	Yellow pan
-29.03	167.92	21/05/2014	Asparagaceae	*Cordyline* sp.	Thysanoptera	Thripidae	*Parthenothrips dracaenae* (Heeger, 1854)	Y	Y	Beating
-29.03	167.95	8/10/2014	Asparagaceae	*Cordyline obtecta*	Thysanoptera	Thripidae	*Parthenothrips dracaenae*	Y	Y	Beating
-29.03	167.96	20/02/2014	NA	NA	Lepidoptera	Geometridae	*Pasiphilodes testulata* (Guenée, 1857)	N	Y	Bucket light trap
-29.01	167.93	27/02/2014	NA	NA	Lepidoptera	Geometridae	*Pasiphilodes testulata*	N	Y	Light trap among eucalypt forest
-29.03	167.97	22/05/2014	NA	NA	Lepidoptera	Geometridae	*Pasiphilodes testulata*	N	Y	Light trap
-29.03	167.96	19/02/2014	NA	NA	Lepidoptera	Geometridae	*Pasiphilodes testulata*	N	Y	Light trap
-29.00	167.94	24/02/2014	Malvaceae	*Lagunaria patersonia*	Lepidoptera	Gelechiidae	*Pectinophora scutigera* (Holdaway, 1926)	N	Y	Beating
-29.04	167.94	28/02/2014	NA	NA	Lepidoptera	Gelechiidae	*Pectinophora scutigera*	N	Y	Light trap
-29.01	167.93	27/02/2014	NA	NA	Lepidoptera	Gelechiidae	*Pectinophora scutigera*	N	Y	Light trap among eucalypt forest
-29.03	167.96	25/05/2014	NA	NA	Lepidoptera	Gelechiidae	*Pectinophora scutigera*	N	Y	Light trap
-29.00	167.93	22/02/2014	NA	NA	Lepidoptera	Gelechiidae	*Pectinophora scutigera*	N	Y	Bucket light trap in orchard
-29.03	167.94	26/02/2014	Malvaceae	*Hibiscus insularis*	Lepidoptera	Gelechiidae	*Pectinophora scutigera*	N	Y	Reared in lab
-29.01	167.92	16/10/2014	NA	NA	Coleoptera	Carabidae	*Pentagonica atkinsoni* Fauvel, 1882	N	N	Light trap
-29.01	167.93	27/02/2014	NA	NA	Coleoptera	Carabidae	*Pentagonica atkinsoni*	N	N	Light trap in eucalypt forest
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Carabidae	*Pentagonica atkinsoni*	N	N	Light trap 33
-29.03	167.97	27/11/2014	NA	NA	Coleoptera	Carabidae	*Pentagonica atkinsoni*	N	N	Light trap
-29.05	167.95	20/02/2014	NA	NA	Coleoptera	Carabidae	*Pentagonica atkinsoni*	N	N	Light trap
-29.00	167.93	20/02/2014	Musaceae	*Musa* sp.	Hemiptera	Aphididae	*Pentalonia nigronervosa* Coquerel, 1859	Y	Y	Sweep net
-29.04	167.99	14/06/2013	Musaceae	*Musa* sp.	Hemiptera	Aphididae	*Pentalonia nigronervosa*	Y	Y	Hand collection in flowers only

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.93	26/12/2012	Lamiaceae, Brassicaceae, Musaceae	*Ocimum basilicum*, *Musa* sp.	Hemiptera	Aphididae	*Pentalonia nigronervosa*	Y	Y	Yellow pan
-29.00	167.93	23/12/2012	Various		Hemiptera	Aphididae	*Pentalonia nigronervosa*	Y	Y	Yellow pan among various vegetables
-29.05	167.92	27/09/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Pentamimus nepeanianus* (Olliff, 1888)	N	N	Hand collection from dead branch on live tree
-29.05	167.92	11/10/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Pentamimus nepeanianus*	N	N	Hand collection from felled tree #1
-29.03	167.96	25/09/2013	NA	NA	Coleoptera	Curculionidae	*Pentamimus nepeanianus*	N	N	Hand collection from timber
-29.01	167.94	23/09/2013	Unknown	Unknown	Coleoptera	Curculionidae	*Pentamimus nepeanianus*	N	N	Hand collection from dead wood
-29.05	167.93	14/06/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Pentamimus nepeanianus*	N	N	Hand collection
-29.02	167.93	25/02/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Pentarthrum millingtoni* Olliff, 1888	N	N	Hand collection from under bark of billets
-29.03	167.97	21/05/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Pentarthrum millingtoni*	N	N	Hand collection from sawn timber
-29.02	167.93	12/10/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Pentarthrum millingtoni*	N	N	Hand collection
-29.03	167.97	7/10/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Pentarthrum millingtoni*	N	N	Hand collection
-29.05	167.92	19/05/2014	NA	NA	Coleoptera	Curculionidae	*Pentarthrum millingtoni*	N	N	Light trap
-29.03	167.97	18/02/2014	NA	NA	Coleoptera	Curculionidae	*Pentarthrum millingtoni*	N	N	Hand collection from timber billets
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Curculionidae	*Pentarthrum millingtoni*	N	N	Light trap #3
-29.03	167.97	27/11/2014	NA	NA	Coleoptera	Curculionidae	*Pentarthrum millingtoni*	N	N	Light trap
-29.03	167.96	25/09/2013	NA	NA	Coleoptera	Curculionidae	*Pentarthrum millingtoni*	N	N	Hand collection from timber
-29.05	167.92	24/09/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Pentarthrum millingtoni*	N	N	Hand collection
-29.05	167.92	25/11/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Eriophyidae	c.f *Pentasetacus*	Y	?	Ethanol wash
-29.00	167.93	24/11/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Eriophyidae	c.f *Pentasetacus*	Y	?	Ethanol wash
-29.03	167.97	18/02/2014	NA	NA	Blattodea	Blattidae	*Periplaneta americana* (Linnaeus, 1758)	N	Y	Hand collection from timber
-29.03	167.95	25/02/2014	NA	NA	Blattodea	Blattidae	*Periplaneta americana*	N	Y	Hand collection
-29.12	167.95	14/10/2014	Malvaceae	*Lagunaria patersonia*	Lepidoptera	Gelechiidae	*Pexicopia* Common, 1958	Y	?	Hand collection and beating
-29.03	167.98	22/05/2014	Solanaceae	*Nicandra physaloides*	Hymenoptera	Formicidae	*Pheidole* Westwood, 1841	?	?	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.93	16/10/2014	Poaceae	*Cenchrus purpureus*	Hymenoptera	Formicidae	*Pheidole* sp.	?	?	Hand collection
-29.03	167.92	22/05/2014	Lamiaceae	*Ocimum basilicum*	Hymenoptera	Formicidae	*Pheidole* cf. *vigilans*	?	?	Beating
-29.03	167.99	24/12/2012	Cucurbitaceae	*Cucurbita pepo*	Hymenoptera	Formicidae	*Pheidole vigilans* (Smith, 1858)	N	Y	Yellow pan on bare soil beside curcubits
-29.00	167.93	20/02/2014	Asteraceae	*Lactuca sativa*	Hymenoptera	Formicidae	*Pheidole vigilans*	N	Y	Hand collection
-29.00	167.93	20/02/2014	Musaceae	*Musa* sp.	Hymenoptera	Formicidae	*Pheidole vigilans*	N	Y	Sweep net
-29.06	167.95	27/09/2013	NA	NA	Hymenoptera	Formicidae	*Pheidole vigilans*	N	Y	Hand collection from soil
-29.12	167.95	15/10/2014	NA	NA	Hymenoptera	Formicidae	*Pheidole vigilans*	N	Y	Hand collection
-29.00	167.93	24/09/2013	Caricaceae	*Carica papaya*	Hymenoptera	Formicidae	*Pheidole vigilans*	N	Y	Hand collection from rotting fruit on ground
-29.01	167.93	13/06/2013	Rosaceae	*Malus pumila*	Coleoptera	Curculionidae	*Phlyctinus callosus* (Schoenherr, 1826)	N	Y	Hand collection
-29.03	167.97	7/10/2014	Polygalaceae	*Polygala myrtifolia*	Coleoptera	Curculionidae	*Phlyctinus callosus*	N	Y	Sweep net
-29.01	167.93	26/02/2014	Myrtaceae	*Eucalyptus* sp.	Coleoptera	Cerambycidae	*Phoracantha semipunctata* (Fabricius, 1775)	Y	Y	Hand collection
-29.06	167.97	24/05/2014	Brassicaceae	*Lobularia maritima*	Lepidoptera	Geometridae	*Phrissogonus laticostata* (Walker, 1862)	N	Y	Beating
-29.00	167.93	12/06/2013	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Eriophyidae	*Phyllocoptruta oleivora* (Ashmead, 1879)	Y	Y	Ethanol wash
-29.03	167.99	20/02/2014	Fagaceae	*Quercus* sp.	Lepidoptera	Gracillariidae	*Phyllonorycter messaniella* (Zeller, 1846)	N	Y	Beating
-29.00	167.93	23/12/2012; 24/10/2013	Various		Diptera	Agromyzidae	*Phytoliriomyza pittosporocaulis* (Hering, 1962)	Y	Y	Yellow pan
-29.03	167.98	22/05/2014	Convolvulaceae	*Ipomoea batatas*	Mesostigmata	Phytoseiidae	*Phytoseiulus persimilis* Athias-Henriot, 1957	Y	Y	Beating
-29.05	167.97	21/02/2014	Fabaceae	*Phaseolus* sp.	Mesostigmata	Phytoseiidae	*Phytoseiulus persimilis*	Y	Y	Hand collection
-29.03	167.92	22/05/2014	Fabaceae	*Phaseolus vulgaris*	Mesostigmata	Phytoseiidae	*Phytoseiulus persimilis*	Y	Y	Beating
-29.03	167.93	27/11/2014	Fabaceae	*Phaseolus vulgaris*	Mesostigmata	Phytoseiidae	*Phytoseiulus persimilis*	Y	Y	Ethanol wash
-29.04	167.96	4/12/2014	Rosaceae	*Rosa* sp.	Mesostigmata	Phytoseiidae	*Phytoseiulus persimilis*	Y	Y	Hand collection
-29.12	167.95	14/10/2014	Cucurbitaceae	*Zehneria baueriana*	Mesostigmata	Phytoseiidae	*Phytoseiulus persimilis*	Y	Y	Hand collection
-29.04	167.94	23/11/2014	Hemerocallidaceae	*Hemerocallis* sp.	Mesostigmata	Phytoseiidae	*Phytoseiulus persimilis*	Y	Y	Ethanol wash
-29.04	167.99	23/05/2014	Myrtaceae	*Psidium guajava*	Mesostigmata	Phytoseiidae	*Phytoseius rubiginosae* Schicha, 1984	Y	Y	Beating
-29.04	167.99	27/11/2014	Rosaceae	*Malus pumila*	Mesostigmata	Phytoseiidae	*Phytoseius rubiginosae*	Y	Y	Ethanol wash

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.99	25/11/2014	Solanaceae	*Solanum tuberosum*	Hemiptera	Pentatomidae	*Piezodorus oceanicus* (Montrouzier, 1864)	Y	Y	Hand collection
-29.03	167.99	21/02/2014	Fabaceae	*Glycine max*	Hemiptera	Pentatomidae	*Piezodorus oceanicus*	Y	Y	Hand collection
-29.05	167.92	19/05/2014	NA	NA	Coleoptera	Scarabaeidae	*Pimelopus fischeri* (Montrouzier, 1860)	N	Y	Light trap
-29.03	167.95	7/10/2014	NA	NA	Coleoptera	Scarabaeidae	*Pimelopus fischeri*	N	Y	Light trap
-29.03	167.96	23/02/2014	NA	NA	Coleoptera	Scarabaeidae	*Pimelopus fischeri*	N	Y	Light trap #4
-29.00	167.93	20/02/2014	Rutaceae	*Citrus ×aurantium*	Coleoptera	Scarabaeidae	*Pimelopus fischeri*	N	Y	Hand collection
-29.02	167.97	22/09/2013	Malvaceae	*Lagunaria patersonia*	Hemiptera	Diaspididae	*Pinnaspis strachani* (Cooley, 1899)	Y	Y	Hand collection
-29.04	167.99	25/09/2013	Malvaceae	*Lagunaria patersonia*	Hemiptera	Diaspididae	*Pinnaspis strachani*	Y	Y	Hand collection
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Hymenoptera	Crabronidae	*Pison* Jurine, 1808	?	?	Yellow pan
-29.03	167.99	23/10/2013	Various		Hymenoptera	Crabronidae	*Pison marginatum* Smith, 1856	N	Y	Yellow pan
-29.03	167.99	23/10/2013	Various		Hymenoptera	Crabronidae	*Pison spinolae* Shuckard, 1838	N	Y	Yellow pan among various young vegetables
-29.03	167.99	24/12/2012	Cucurbitaceae	*Cucurbita pepo*	Hymenoptera	Crabronidae	*Pison spinolae*	N	Y	Yellow pan
-29.03	167.99	22 - 23/03/2014	Various		Hymenoptera	Crabronidae	*Pison westwoodii* Shuckard, 1838	N	Y	Yellow pan among various vegetables
-29.02	167.96	26/03/2014	Various		Hymenoptera	Crabronidae	*Pison westwoodii*	N	Y	Yellow pan
-29.00	167.93	23/12/2012; 27/02/2014	Various		Hymenoptera	Crabronidae	*Pison westwoodii*	N	Y	Yellow pan among various vegetables seedings
-29.00	167.93	23 - 24/03/2014	Various		Hymenoptera	Crabronidae	*Pison westwoodii*	N	Y	Yellow pan among various vegetables
-29.00	167.93	26/12/2012	Lamiaceae, Brassicaceae, Musaceae	*Ocimum basilicum*, *Musa* sp.	Hymenoptera	Crabronidae	*Pison westwoodii*	N	Y	Yellow pan
-29.03	167.99	23/12/2012	Solanaceae	*Solanum lycopersicum*	Hymenoptera	Crabronidae	*Pison westwoodii*	N	Y	Yellow pan
-29.04	167.99	23 - 24/03/2014	Various		Hymenoptera	Crabronidae	*Pison westwoodii*	N	Y	Yellow pan among various vegetables
-29.01	167.93	16/10/2014	Poaceae	*Cenchrus purpureus*	Hymenoptera	Formicidae	*Plagiolepis alluaudi* Forel, 1894	Y?	N	Hand collection
-29.04	167.97	26/05/2014	Rosaceae	*Fragaria ×ananassa*	Hymenoptera	Formicidae	*Plagiolepis alluaudi*	Y?	N	Hand collection
-29.02	167.97	22/09/2013	Malvaceae	*Lagunaria patersonia*	Hymenoptera	Formicidae	*Plagiolepis alluaudi*	Y?	N	Hand collection
-29.12	167.95	14/10/2014	Malvaceae	*Lagunaria patersonia*	Hymenoptera	Formicidae	*Plagiolepis alluaudi*	Y?	N	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.99	23/05/2014	Myrtaceae	*Psidium guajava*	Hymenoptera	Formicidae	*Plagiolepis alluaudi*	Y?	N	Beating
-29.04	167.99	8/10/2014	Lythraceae	*Punica granatum*	Hymenoptera	Formicidae	*Plagiolepis alluaudi*	Y?	N	Hand collection and beating
-29.04	167.99	26/05/2014	Solanaceae	*Solanum mauritianum*	Hymenoptera	Formicidae	*Plagiolepis alluaudi*	Y?	N	Beating
-29.06	167.97	25/05/2014	Unknown	Unknown	Hymenoptera	Formicidae	*Plagiolepis alluaudi*	Y?	N	Beating
-29.00	167.93	27/02/2014	Zingiberaceae	*Zingiber* Boehm.	Hymenoptera	Formicidae	*Plagiolepis alluaudi*	Y?	N	Hand collection
-29.04	167.99	23 - 24/03/2014	Various		Hymenoptera	Formicidae	*Plagiolepis alluaudi*	Y?	N	Yellow pan among various vegetables
-29.05	167.97	21/02/2014	Lamiaceae	*Rosmarinus officinalis*	Hemiptera	Pseudococcidae	*Planococcus citri* (Risso, 1813)	Y	Y	Hand collection
-29.02	167.96	26/09/2013	Solanaceae	*Solanum melongena*	Hemiptera	Pseudococcidae	*Planococcus citri*	Y	Y	Hand collection
-29.04	167.97	26/05/2014	Rosaceae	*Fragaria* ×*ananassa*	Hemiptera	Pseudococcidae	*Planococcus citri*	Y	Y	Hand collection
-29.02	167.96	13/10/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Histeridae	*Platylister sulcisternus* (Lewis, 1900)	Y	Y	Hand collection from tree felled 10 months prior
-29.03	167.9	25/09/2013	NA	NA	Coleoptera	Histeridae	*Platylister sulcisternus*	Y	Y	Hand collection
-29.05	167.95	20/02/2014	NA	NA	Lepidoptera	Pterophoridae	*Platyptilia* Hübner, 1825	?	?	Light trap
-29.02	167.94	2/12/2014	NA	NA	Coleoptera	Curculionidae	*Platypus norfolkensis* Schedl, 1972	N	N	Light trap among Norfolk Island pines
-29.03	167.96	19/02/2014	NA	NA	Coleoptera	Curculionidae	*Platypus norfolkensis*	N	N	Light trap #1
-29.05	167.95	20/02/2014	NA	NA	Hemiptera	Pentatomidae	*Plautia brunnipennis* (Montrouzier, 1861)	N	Y	Light trap
-29.057	167.94	11/10/2014	Rosaceae	*Prunus persica* var. *persica*	Hemiptera	Pentatomidae	*Plautia brunnipennis*	N	Y	Beating
-29.04	167.99	25/11/2014	Solanaceae	*Solanum tuberosum*	Hemiptera	Pentatomidae	*Plautia brunnipennis*	N	Y	Hand collection
-29.12	167.95	14/10/2014	Rubiaceae	*Coprosma baueri*	Hemiptera	Pentatomidae	*Plautia brunnipennis*	N	Y	Beating
-29.03	167.99	22/03/2014	Meliaceae	*Toona ciliata*	Thysanoptera	Phlaeothripidae	*Plectrothrips australis* Okajama, 1981	Y	Y	Hand collection from dead branch
-29.02	167.96	26/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Plectrothrips australis*	Y	Y	Hand collection from dead branch
-29.02	167.95	25/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Plectrothrips australis*	Y	Y	Hand collection from dead branch
-29.02	167.96	28/11/2014; 2*/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Plectrothrips australis*	Y	Y	Hand collection from leaf litter
-29.02	167.96	29/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Phlaeothripidae	*Plectrothrips australis*	Y	Y	Hand collection
-29.02	167.96	25/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Plectrothrips* Hood, 1908 sp. nov.	Y	Y	Hand collection from dead branches

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.93	23/03/2014	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Thripidae	*Plesiothrips perplexus* (Beach, 1897)	Y	Y	Hand collection from leaf bases
-29.00	167.94	24/03/2014	Poaceae, Oleaceae	*Olea europaea* subsp. *cuspidata*	Thysanoptera	Thripidae	*Plesiothrips perplexus*	Y	Y	Hand collection from grasses, olive litter
-29.03	167.99	22/10/2013	Poaceae, Fabaceae	*Trifolium* sp.	Thysanoptera	Thripidae	*Plesiothrips perplexus*	Y	Y	Hand collection
-29.00	167.94	24/03/2014	Poaceae		Thysanoptera	Thripidae	*Plesiothrips perplexus*	Y	Y	Hand collection from leaf bases
-29.01	167.94	24/12/2012	Pandanaceae	*Freycinetia banksii*?	Mesostigmata	Celaenopsidae	*Pleuronectocelaeno* Yitzhaki, 1926	Y	?	Beating dead leaves
-29.03	167.95	25/02/2014	NA	NA	Lepidoptera	Pyralidae	*Plodia interpunctella* (Hübner, 1813)	Y	Y	Hand collection
-29.03	167.98	21/05/2014	Brassicaceae	*Brassica oleracea* var. *italica*	Lepidoptera	Plutellidae	*Plutella* Schrank, 1802	?	?	Beating
-29.04	167.93	18/02/2014	Brassicaceae	*Brassica oleracea* var. *capitata*	Lepidoptera	Plutellidae	*Plutella xylostella* (Linnaeus, 1758)	N	Y	Sweep net
-29.00	167.93	20/02/2014	Brassicaceae	*Brassica oleracea* var. *capitata*	Lepidoptera	Plutellidae	*Plutella xylostella*	N	Y	Hand collection (larvae)
-29.06	167.94	22/09/2013	Brassicaceae	*Brassica oleracea* var. *capitata*	Lepidoptera	Plutellidae	*Plutella xylostella*	N	Y	Observation
-29.06	167.95	2/06/2014	NA	NA	Diptera	Sphaeroceridae	*Poecilosomella* Duda, 1925	Y	?	LuciLure trap
-29.06	167.96	12/06/2014	NA	NA	Diptera	Sphaeroceridae	*Poecilosomella* sp.	Y	?	LuciLure trap
-29.03	167.93	2/07/2014; 24/07/2014	NA	NA	Diptera	Sphaeroceridae	*Poecilosomella* sp.	Y	?	LuciLure trap
-29.03	167.98	2/07/2014; 12/06/2014; 17/07/2014	NA	NA	Diptera	Sphaeroceridae	*Poecilosomella* sp.	Y	?	LuciLure trap
-29.02	167.97	2/07/2014; 12/06/2014; 17/07/2014; 10/06/2014	NA	NA	Diptera	Sphaeroceridae	*Poecilosomella* sp.	Y	?	LuciLure trap
-29.01	167.92	28/05/2014; 10/06/2014; 24/06/2014	NA	NA	Diptera	Sphaeroceridae	*Poecilosomella* sp.	Y	?	LuciLure trap
-29.00	167.93	24/10/2013; 27/02/2014	Various		Hymenoptera	Vespidae	*Polistes chinensis* (Fabricius, 1793)	N	Y	Yellow pan among various young vegetables
-29.00	167.93	23 - 24/03/2014	Various		Hymenoptera	Vespidae	*Polistes chinensis*	N	Y	Yellow pan among various vegetables
-29.04	167.93	18/02/2014	Apiaceae	*Foeniculum vulgare*	Hymenoptera	Vespidae	*Polistes chinensis*	N	Y	Hand collection
-29.01	167.93	3/12/2014	NA	NA	Hymenoptera	Vespidae	*Polistes chinensis*	N	Y	Light trap in eucalypt forest
-29.03	167.99	22 - 23/03/2014	Various		Hymenoptera	Vespidae	*Polistes chinensis*	N	Y	Yellow pan among various vegetables

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.93	12/06/2013; 24/09/2013	Solanaceae	*Capsicum annuum*	Trombidiformes	Tarsonemidae	*Polyphagotarsonemus latus* (Banks, 1904)	Y	Y	Hand collection
-29.04	167.95	26/11/2014	Solanaceae	*Capsicum annuum*	Trombidiformes	Tarsonemidae	*Polyphagotarsonemus latus*	Y	Y	Ethanol wash
-29.04	167.99	14/06/2013	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Tarsonemidae	*Polyphagotarsonemus latus*	Y	Y	Hand collection
-29.04	167.99	27/11/2014	Moraceae	*Ficus carica*	Trombidiformes	Tarsonemidae	*Polyphagotarsonemus latus*	Y	Y	Ethanol wash
-29.04	167.99	27/11/2014	Rosaceae	*Malus pumila*	Trombidiformes	Tarsonemidae	*Polyphagotarsonemus latus*	Y	Y	Ethanol wash
-29.03	167.93	27/11/2014	Anacardiaceae	*Mangifera indica*	Trombidiformes	Tarsonemidae	*Polyphagotarsonemus latus*	Y	Y	Ethanol wash
-29.04	167.99	27/11/2014	Passifloraceae	*Passiflora edulis*	Trombidiformes	Tarsonemidae	*Polyphagotarsonemus latus*	Y	Y	Ethanol wash
-29.04	167.98	27/11/2014	Lauraceae	*Persea americana*	Trombidiformes	Tarsonemidae	*Polyphagotarsonemus latus*	Y	Y	Ethanol wash
-29.04	167.99	27/11/2014	Rosaceae	*Prunus persica* var. *nucipersica*	Trombidiformes	Tarsonemidae	*Polyphagotarsonemus latus*	Y	Y	Ethanol wash
-29.04	167.95	26/11/2014	Rosaceae	*Prunus persica* var. *persica*	Trombidiformes	Tarsonemidae	*Polyphagotarsonemus latus*	Y	Y	Ethanol wash
-29.04	167.99	27/11/2014	Rosaceae	*Pyrus communis*	Trombidiformes	Tarsonemidae	*Polyphagotarsonemus latus*	Y	Y	Ethanol wash
-29.03	167.93	27/11/2014	Solanaceae	*Solanum lycopersicum*	Trombidiformes	Tarsonemidae	*Polyphagotarsonemus latus*	Y	Y	Ethanol wash
-29.03	167.93	26/09/2013	Solanaceae	*Capsicum annuum*	Trombidiformes	Tarsonemidae	*Polyphagotarsonemus latus*	Y	Y	Hand collection
-29.06	167.96	25/05/2014	Unknown	Unknown	Isopoda	Porcellionidae	*Porcellio laevis* Latreille, 804	N	Y	Hand collection
-29.02	167.97	22/09/2013	NA	NA	Isopoda	Porcellionidae	*Porcellionides pruinosus* (Brandt, 1833)	Y	Y	Hand collection from soil
-29.04	167.94	18/05/2014	NA	NA	Isopoda	Porcellionidae	*Porcellionides pruinosus*	Y	Y	Hand collection
-29.04	167.94	23/09/2013	NA	NA	Isopoda	Porcellionidae	*Porcellionides sexfasciatus* (Brandt, 1833)	Y	Y	Hand collection
-29.02	167.96	26/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Phlaeothripidae	*Priesneria* Bagnall, 1926 sp. nov.	Y	N	Hand collection from dead branch and moss
-29.01	167.94	30/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Priesneria* sp. nov.	Y	N	Hand collection from dead branches
-29.04	167.99	24/11/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Priesneriana uptoni* (Mound, 1974)	N	N	Hand collection from litter
-29.03	167.99	22/03/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Priesneriana uptoni*	N	N	Hand collection from leaf litter
-29.00	167.94	24/03/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Priesneriana uptoni*	N	N	Hand collection from leaf litter
-29.02	167.92	25/12/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Priesneriana uptoni*	N	N	Hand collection, berlesate from leaf litter

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.94	22/12/2013; 22/03/2014; 21/10/2013; 26/10/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Priesneriana uptoni*	N	N	Hand collection, berlesate
-29.02	167.96	24/10/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Priesneriana uptoni*	N	N	Hand collection from leaf litter
-29.02	167.95	24/12/2013	Celastraceae	*Elaeodendron curtipendulum*	Thysanoptera	Phlaeothripidae	*Priesneriana uptoni*	N	N	Hand collection from lichens
-29.05	167.93	25/12/2013	Araucariaceae, Proteaceae	*Grevillea robusta*	Thysanoptera	Phlaeothripidae	*Priesneriana uptoni*	N	N	Hand collection from dead wood
-29.02	167.95	21/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Priesneriana uptoni*	N	N	Hand collection, berlesate from leaf litter
-29.02	167.96	26/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Priesneriana uptoni*	N	N	Hand collection, berlesate from leaf litter
-29.02	167.96	23/10/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Priesneriana uptoni*	N	N	Hand collection from dead leaves
-29.06	167.94	11/10/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Stigmaeidae	*Primogistemus loadmani* (Wood, 1967)	Y	N	Beating
-29.03	167.99	24/12/2012	Musaceae	*Musa* sp.	Hymenoptera	Chrysididae	*Primeuchroeus hiroi* (Mocsáry, 1899)	N	Y	Yellow pan
-29.02	167.96	26/03/2014	Various		Hymenoptera	Chrysididae	*Primeuchroeus hiroi*	N	Y	Yellow pan
Unknown	Unknown	9/06/2013	Unknown	Unknown	Diptera	Tephritidae	*Procecidochares alani* Steyskal, 1974	N	Y	Hand collection
-29.03	167.96	25/05/2014	NA	NA	Diptera	Tephritidae	*Procecidochares alani*	N	Y	Light trap
-29.00	167.94	24/02/2014	Araucariaceae	*Araucaria heterophylla*	Mesostigmata	Melichariidae	*Proctolaelaps* Berlese, 1923	Y	?	Hand collection
-29.04	167.98	27/11/2014	Caricaceae	*Carica papaya*	Trombidiformes	Tydeidae	*Pronematus ubiquitus* McGregor, 1932	Y	?	Ethanol wash
-29.03	167.99	21/02/2014	Poaceae	*Triticum* sp.	Mesostigmata	Phytoseiidae	*Proprioseiopsis* Muma, 1961	Y	?	Hand collection
-29.00	167.94	26/03/2014	Oleaceae, Poaceae	*Olea europaea* subsp. *cuspidata*	Thysanoptera	Phlaeothripidae	*Psalidothrips* Priesner, 1932 sp. nov.	Y	?	Hand collection from grass litter
-29.02	167.96	26/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Psalidothrips* sp. nov.	Y	?	Hand collection
-29.00	167.94	24/03/2014	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Psalidothrips taylori* Mound & Walker, 1986	Y	Y	Hand collection from leaf litter
-29.00	167.94	24/03/2014	Poaceae	Unknown	Thysanoptera	Phlaeothripidae	*Psalidothrips taylori*	Y	Y	Hand collection
-29.03	167.93	26/09/2013	Anacardiaceae	*Mangifera indica*	Hemiptera	Diaspididae	*Pseudaulacaspis pentagona* (Targioni, 1886)	N	Y	Hand collection
-29.03	167.93	26/09/2013	Rosaceae	*Prunus persica* var. *nucipersica*	Hemiptera	Diaspididae	*Pseudaulacaspis pentagona*	N	Y	Hand collection
-29.04	167.99	25/09/2013	Rosaceae	*Prunus persica* var. *persica*	Hemiptera	Diaspididae	*Pseudaulacaspis pentagona*	N	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.99	25/09/2013	Rosaceae	*Prunus persica* var. *persica*	Hemiptera	Diaspididae	*Pseudaulacaspis pentagona*	N	Y	Hand collection
-29.01	167.94	23/09/2013	Rosaceae	*Prunus persica* var. *persica*	Hemiptera	Diaspididae	*Pseudaulacaspis pentagona*	N	Y	Hand collection
-29.02	167.96	10/06/2013	Solanaceae	*Solanum melongena*	Hemiptera	Diaspididae	*Pseudaulacaspis pentagona*	N	Y	Hand collection
-29.04	167.99	14/06/2013	Vitaceae	*Vitis vinifera*	Hemiptera	Diaspididae	*Pseudaulacaspis pentagona*	N	Y	Hand collection
-29.04	167.94	23/09/2013	Asparagaceae	*Cordyline obtecta*	Hemiptera	Diaspididae	*Pseudaulacaspis pentagona*	N	Y	Hand collection
-29.02	167.97	22/09/2013	Araceae	*Colocasia esculenta*	Hemiptera	Pseudococcidae	*Pseudococcus* Westwood, 1840	?	?	Hand collection (nymphs)
-29.04	167.94	23/09/2013	Asparagaceae	*Cordyline obtecta*	Hemiptera	Pseudococcidae	*Pseudococcus longispinus* (Targioni Tozzetti, 1867)	N	Y	Hand collection
-29.02	167.97	22/09/2013	Malvaceae	*Lagunaria patersonia*	Hemiptera	Pseudococcidae	*Pseudococcus longispinus*	N	Y	Hand collection
-29.05	167.97	21/02/2014	Verbenaceae	*Lantana camara*	Hemiptera	Pseudococcidae	*Pseudococcus longispinus*	N	Y	Beating
-29.00	167.94	24/02/2014	Hemerocallidaceae	*Phormium tenax*	Hemiptera	Pseudococcidae	*Pseudococcus longispinus*	N	Y	Beating
-29.03	167.98	25/09/2013	Solanaceae	*Solanum melongena*	Hemiptera	Pseudococcidae	*Pseudococcus longispinus*	N	Y	Beating
-29.03	167.98	14/06/2013	Solanaceae	*Solanum melongena*	Hemiptera	Pseudococcidae	*Pseudococcus longispinus*	N	Y	Hand collection
-29.02	167.96	10/06/2013	Solanaceae	*Solanum melongena*	Hemiptera	Pseudococcidae	*Pseudococcus longispinus*	N	Y	Hand collection
-29.02	167.96	26/09/2013	Solanaceae	*Solanum melongena*	Hemiptera	Pseudococcidae	*Pseudococcus longispinus*	N	Y	Hand collection
-29.03	167.93	26/09/2013	Rutaceae	*Citrus ×aurantium*	Hemiptera	Pseudococcidae	*Pseudococcus longispinus*	N	Y	Hand collection
-29.01	167.93	13/06/2013	Rubiaceae	*Coffea* sp.	Hemiptera	Pseudococcidae	*Pseudococcus viburni* (Signoret, 1875)	Y	Y	Hand collection
-29.05	167.96	9/10/2014	Cucurbitaceae	*Sechium edule* (Jacq.) Sw.	Hemiptera	Pseudococcidae	*Pseudococcus viburni*	Y	Y	Hand collection
-29.02	167.96	10/06/2013	Solanaceae	*Solanum melongena*	Hemiptera	Pseudococcidae	*Pseudococcus viburni*	Y	Y	Hand collection
-29.12	167.95	14/10/2014	Asteraceae	*Cirsium vulgare* (Savi) Ten.	Hemiptera	Pseudococcidae	*Pseudococcus viburni*	Y	Y	Hand collection (crawler and nymphs)
-29.03	167.99	22 - 23/03/2014	Various		Coleoptera	Anthicidae	*Pseudocyclodinus strictus* (Erichson, 1842)	N	Y	Yellow pan
-29.01	167.95	25/12/2012	Araucariaceae	*Araucaria heterophylla*	Diptera	Sciaridae	*Pseudolycoriella* Menzel & Mohrig sp. nov.	Y	?	Yellow pan
-29.00	167.93	26/12/2012	Various, Apiaceae, Brassicaceae	*Apium graveolens*	Diptera	Agromyzidae	*Pseudonapomyza* Hendel, 1920	Y	?	Yellow pan
-29.03	167.99	23 - 24/03/2014	Various		Diptera	Agromyzidae	*Pseudonapomyza spinosa* Spencer, 1973	Y	Y	Yellow pan among various vegetables
-29.00	167.93	23 - 24/03/2014	Various		Diptera	Agromyzidae	*Pseudonapomyza spinosa*	Y	Y	Yellow pan

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	24/12/2012	Cucurbitaceae	*Cucurbita pepo*	Diptera	Agromyzidae	*Pseudonapomyza spinosa*	Y	Y	Yellow pan on bare soil beside cucurbits
-29.06	167.97	24/06/2014	NA	NA	Diptera	Agromyzidae	*Pseudonapomyza spinosa*	Y	Y	Bezzilure trap
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Diptera	Agromyzidae	*Pseudonapomyza spinosa*	Y	Y	Yellow pan
-29.03	167.99	21/02/2014	Poaceae	*Triticum* sp.	Diptera	Agromyzidae	*Pseudonapomyza spinosa*	Y	Y	Hand collection
-29.03	167.94	19/02/2014	Poaceae	Unknown	Diptera	Agromyzidae	*Pseudonapomyza spinosa*	Y	Y	Hand collection
-29.03	167.99	22 - 23/03/2014	Various		Diptera	Agromyzidae	*Pseudonapomyza spinosa*	Y	Y	Yellow pan among various vegetables
-29.03	167.94	26/05/2014	NA	NA	Orthoptera	Tettigoniidae	*Pseudorhynchus lessonii* Audinet-Serville, 1838	N	Y	Light trap Set 25.5.2014, collected 26.5.2014
-29.03	167.99	23/10/2013	Various		Coleoptera	Chrysomelidae	*Psylliodes brettinghami* Baly, 1862	N	Y	Yellow pan among various young vegetables
-29.03	167.99	22 - 23/03/2014	Various		Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Yellow pan among various vegetables
-29.00	167.93	24/10/2013	Various		Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Yellow pan among various young vegetables
-29.00	167.93	23 - 24/03/2014	Various		Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Yellow pan among various vegetables
-29.00	167.93	27/02/2014	Various		Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Yellow pan among various young vegetables
-29.00	167.93	23/12/2012	Various		Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Yellow pan among vegetable seedlings
-29.05	167.94	22/09/2013	Brassicaceae	*Brassica oleracea* var. *capitata*	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Hand collection
-29.02	167.96	26/09/2013	Solanaceae	*Capsicum annuum*	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Hand collection leaf damage
-29.00	167.93	24/09/2013	Cucurbitaceae	*Cucurbita maxima*	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Sweep net
-29.04	167.99	21/02/2014	Fabaceae	*Glycine max*	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Hand collection
-29.00	167.93	26/12/2012	Musaceae, Asteraceae	*Musa* sp., *Lactuca sativa*	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Yellow pan
-29.01	167.95	25/12/2012	Lomariopsidaceae	*Nephrolepis* sp.	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Yellow pan
-29.06	167.94	11/10/2014	Solanaceae	*Nicandra physalodes*	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Beating
-29.03	167.98	22/05/2014	Solanaceae	*Nicandra physalodes*	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Beating
-29.03	167.99	20/02/2014	Solanaceae	*Nicandra physalodes*	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Sweep net
-29.00	167.93	26/12/2012	Lamiaceae, Brassicaceae, Musaceae	*Ocimum basilicum*, *Musa* sp.	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Yellow pan

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.99	8/10/2014	Solanaceae	*Solanum lycopersicum*	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Beating
-29.03	167.92	21/05/2014	Solanaceae	*Solanum lycopersicum*	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Beating
-29.03	167.99	23/12/2012	Solanaceae	*Solanum lycopersicum*	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Yellow pan
-29.04	167.99	26/05/2014	Solanaceae	*Solanum mauritianum*	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Beating
-29.04	167.99	25/05/2014	Solanaceae	*Solanum tuberosum*	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Beating
-29.03	167.93	12/06/2013	Solanaceae	*Solanum tuberosum*	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Hand collection
-29.01	167.93	13/06/2013	Solanaceae	*Solanum tuberosum*	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Hand collection
-29.03	167.99	24/12/2012	Poaceae	*Zea mays*	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Yellow pan
-29.03	167.99	23/12/2012	Poaceae, Brassicaceae	*Zea mays*, *Brassica oleracea* var. *italica*	Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Yellow pan among old corn and young broccoli
-29.04	167.99	23 - 24/03/2014	Various		Coleoptera	Chrysomelidae	*Psylliodes brettinghami*	N	Y	Yellow pan among various vegetables
-29.05	167.95	20/02/2014	NA	NA	Lepidoptera	Crambidae	*Prochostola* Meyrick, 1882	Y	?	Light trap
-29.05	167.93	19/05/2014	NA	NA	Lepidoptera	Crambidae	*Prochostola* sp.	Y	?	Light trap
-29.03	167.96	19/02/2014	NA	NA	Lepidoptera	Crambidae	*Prochostola* sp.	Y	?	Light trap
-29.03	167.96	23/02/2014	NA	NA	Lepidoptera	Crambidae	*Prochostola* sp.	Y	?	Light trap
-29.01	167.93	27/02/2014	NA	NA	Lepidoptera	Crambidae	*Prochostola* sp.	Y	?	Light trap in eucalypt forest
-29.00	167.93	22/02/2014	NA	NA	Lepidoptera	Crambidae	*Prochostola* sp.	Y	?	Bucket light trap in orchard
-29.03	167.97	22/05/2014	NA	NA	Lepidoptera	Crambidae	*Prochostola* sp.	Y	?	Light trap
-29.03	167.97	21/05/2014	Araucariaceae	*Araucaria heterophylla*	Blattodea	Blaberidae	*Pycnoscelus indicus* (Fabricius, 1775)	N	N	Hand collection from sawn timber
-29.00	167.94	24/02/2014	Malvaceae	*Leguinaria patersonia*	Lepidoptera	Cosmopterigidae	*Pyroderces amoista* Bradley, 1956	N	N	Beating
-29.05	167.95	20/02/2014	NA	NA	Hemiptera	Rhyparochromidae	*Remaudiereana inornata* (Walker, 1872)	N	Y	Light trap
-29.03	167.95	7/10/2014	NA	NA	Hemiptera	Rhyparochromidae	*Remaudiereana inornata*	N	Y	Light trap
-29.01	167.93	3/12/2014	NA	NA	Hemiptera	Rhyparochromidae	*Remaudiereana inornata*	N	Y	Light trap in eucalypt forest
-29.02	167.94	2/12/2014	NA	NA	Hemiptera	Rhyparochromidae	*Remaudiereana inornata*	N	Y	Light trap in Norfolk Island pines
-29.03	167.97	27/11/2014	NA	NA	Hemiptera	Rhyparochromidae	*Remaudiereana inornata*	N	Y	Light trap
-29.03	167.97	28/11/2014	NA	NA	Hemiptera	Rhyparochromidae	*Remaudiereana inornata*	N	Y	Light trap
-29.00	167.93	24/12/2012	Lamiaceae	*Ocimum basilicum*	Hemiptera	Rhyparochromidae	*Remaudiereana inornata*	N	Y	Beating flowering plant

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.93	28/11/2014	Solanaceae	*Solanum lycopersicum*	Hemiptera	Rhyparochromidae	*Remaudiereana inornata*	N	Y	Hand collection
-29.06	167.94	26/11/2014	NA	NA	Hemiptera	Rhyparochromidae	*Remaudiereana inornata*	N	Y	Light trap
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Sarcoptiformes	Acaridae	*Rhizoglyphus minutus* Manson, 1972	Y	N	Berlese funnel from leaf litter under palms
-29.03	167.99	21/02/2014	Poaceae	*Triticum* sp.	Hemiptera	Aphididae	*Rhopalosiphum maidis* (Fitch, 1856)	Y	Y	Hand collection
-29.03	167.93	19/02/2014	Poaceae	*Zea mays*	Hemiptera	Aphididae	*Rhopalosiphum maidis*	Y	Y	Hand collection
-29.03	167.99	23/12/2012	Poaceae, Brassicaceae	*Zea mays*, *Brassica oleracea* var. *italica*	Hemiptera	Aphididae	*Rhopalosiphum maidis*	Y	Y	Yellow pan among old corn and young broccoli
-29.03	167.93	19/02/2014	Poaceae	*Cenchrus purpureus*	Hemiptera	Aphididae	*Rhopalosiphum maidis*	Y	Y	Hand collection
-29.00	167.93	26/12/2012	Musaceae, Asteraceae	*Musa* sp., *Lactuca sativa*	Hemiptera	Aphididae	*Rhopalosiphum padi* (Linnaeus, 1758)	Y	Y	Yellow pan
-29.03	167.93	13/06/2013	Poaceae	*Zea mays*	Hemiptera	Aphididae	*Rhopalosiphum padi*	Y	Y	Hand collection
-29.03	167.99	24/12/2012	Poaceae	*Zea mays*	Hemiptera	Aphididae	*Rhopalosiphum padi*	Y	Y	Yellow pan
-29.00	167.93	12/06/2013	Poaceae	*Zea mays*	Hemiptera	Aphididae	*Rhopalosiphum padi*	Y	Y	Hand collection
-29.03	167.93	19/02/2014	Asteraceae	*Lactuca sativa*	Hemiptera	Aphididae	*Rhopalosiphum padi*	Y	Y	Beating
-29.00	167.93	23/12/2012	Various		Hemiptera	Aphididae	*Rhopalosiphum rufiabdominale* (Linnaeus, 1758)	Y	Y	Yellow pan among various young vegetable seedlings
-29.04	167.99	23/05/2014	Moraceae	*Morus* sp.	Coleoptera	Coccinellidae	*Rhyzobius* Stephens, 1829	?	?	Beating
-29.03	167.94	19/02/2014	Rutaceae	*Citrus ×aurantium*	Coleoptera	Coccinellidae	*Rhyzobius fagus* (Broun, 1880)	N	Y	Hand collection
-29.00	167.93	12/06/2013	Rutaceae	*Citrus ×aurantium*	Coleoptera	Coccinellidae	*Rhyzobius fagus*	N	Y	Hand collection
-29.04	167.99	22/05/2014	Rutaceae	*Citrus* sp.	Coleoptera	Coccinellidae	*Rhyzobius fagus*	N	Y	Beating
-29.04	167.94	23/09/2013	Asparagaceae	*Cordyline obtecta*	Coleoptera	Coccinellidae	*Rhyzobius fagus*	N	Y	Hand collection
-29.02	167.97	22/09/2013	Malvaceae	*Lagunaria patersonia*	Coleoptera	Coccinellidae	*Rhyzobius fagus*	N	Y	Hand collection
-29.06	167.94	11/10/2014	Rosaceae	*Prunus persica* var. *persica*	Coleoptera	Coccinellidae	*Rhyzobius fagus*	N	Y	Beating
-29.04	167.94	23/09/2013	Anacardiaceae	*Schinus terebinthifolius*	Coleoptera	Coccinellidae	*Rhyzobius fagus*	N	Y	Sweep net
-29.05	167.97	24/02/2014	Rutaceae	*Citrus ×aurantium*	Coleoptera	Coccinellidae	*Rhyzobius fagus*	N	Y	Hand collection
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Stylommatophora	Microcystidae	*Roybellia platysoma* (Sykes, 1900)	N	N	Berlese funnel from leaf litter under palms
-29.05	167.92	25/11/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiiformes	Cunaxidae	*Rubroscirus* Den Heyer, 1979	Y	?	Ethanol wash

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.06	167.96	24/05/2014	Aspleniaceae	*Asplenium* L.	Hemiptera	Coccidae	*Saissetia coffeae* (Walker, 1852)	N	Y	Hand collection
-29.06	167.94	11/10/2014	Rubiaceae	*Coffea* sp.	Hemiptera	Coccidae	*Saissetia coffeae*	N	Y	Hand collection
-29.01	167.93	26/09/2013	Rubiaceae	*Coffea* sp.	Hemiptera	Coccidae	*Saissetia coffeae*	N	Y	Hand collection
-29.04	167.97	26/05/2014	Rosaceae	*Fragaria ×ananassa*	Hemiptera	Coccidae	*Saissetia coffeae*	N	Y	Hand collection
-29.04	167.94	23/09/2013	Araliaceae	*Meryta angustifolia*	Hemiptera	Coccidae	*Saissetia coffeae*	N	Y	Hand collection
-29.03	167.95	11/06/2013	Apocynaceae	*Plumeria rubra*	Hemiptera	Coccidae	*Saissetia coffeae*	N	Y	Hand collection
-29.02	167.96	10/06/2013	Solanaceae	*Solanum melongena*	Hemiptera	Coccidae	*Saissetia coffeae*	N	Y	Hand collection
-29.02	167.93	26/05/2014	Oleaceae?	Unknown	Hemiptera	Coccidae	*Saissetia coffeae*	N	Y	Hand collection
-29.00	167.93	23/12/2012	Various		Diptera	Sarcophagidae	*Sarcophaga peregrina* (Robineau-Desvoidy, 1830)	N	Y	Yellow pan among various vegetable seedlings
-29.06	167.96	12/06/2014	NA	NA	Diptera	Sarcophagidae	*Sarcophaga peregrina*	N	Y	LuciLure trap
-29.03	167.98	12/06/2014; 24/06/2014; 17/07/2014	NA	NA	Diptera	Sarcophagidae	*Sarcophaga peregrina*	N	Y	LuciLure trap
-29.02	167.97	2/07/2014	NA	NA	Diptera	Sarcophagidae	*Sarcophaga peregrina*	N	Y	Blowfly trap
-29.03	167.99	22 - 23/03/2014	Various		Diptera	Sarcophagidae	*Sarcophaga peregrina*	N	Y	Yellow pan
-29.00	167.93	21/02/2014	NA	NA	Hemiptera	Delphacidae	*Sardia rostrata* Melichar, 1903	Y	Y	Bucket light trap among citrus and avocado trees
-29.02	167.96	25/05/2014	Arecaceae	*Howea* sp.	Lepidoptera	Geometridae	*Sauris curvicosta* Prout, 1928	N	N	Hand collection
-29.04	167.97	2/12/2014	NA	NA	Diptera	Ephydridae	*Scatella septempunctata* Malloch, 1933	Y	N	Hand collection and trapping around potting mix
-29.05	167.93	20/06/2013	Various	Various	Sarcoptiformes	Acaridae	*Schwiebea* Oudemans, 1916	Y	?	Hand collection
-29.02	167.95	21/03/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Thripidae	*Scirtothrips araucariae* Mound & Wells, 2015	Y	N	Hand collection from terminal leaves
-29.02	167.95	21/11/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Thripidae	*Scirtothrips araucariae*	Y	N	Hand collection from terminal leaves
-29.01	167.94	21/03/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Thripidae	*Scirtothrips araucariae*	Y	N	Hand collection from terminal leaves
-29.01	167.95	22/11/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Thripidae	*Scirtothrips araucariae*	Y	N	Hand collection from terminal leaves
-29.03	167.92	23/11/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Thripidae	*Scirtothrips araucariae*	Y	N	Hand collection from terminal branches
-29.01	167.94	25/11/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Thripidae	*Scirtothrips araucariae*	Y	N	Hand collection from terminal branches

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.02	167.96	26/03/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Thripidae	*Scirtothrips araucariae*	Y	N	Hand collection from young leaves
-29.00	167.94	24/03/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Thripidae	*Scirtothrips araucariae*	Y	N	Hand collection from young leaves
-29.03	167.94	23/11/2014	Araucariaceae, Asparagaceae	*Araucaria heterophylla*, *Cordyline* sp.	Thysanoptera	Thripidae	*Scirtothrips araucariae*	Y	N	Hand collection
-29.02	167.96	27/12/2012	Myrtaceae, Convolvulaceae	*Metrosideros* sp., *Ipomoea* sp.	Thysanoptera	Thripidae	*Scirtothrips araucariae*	Y	N	Hand collection from leaves
-29.05	167.98	24/03/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Thripidae	*Scirtothrips araucariae*	Y	N	Hand collection from young leaves
-29.03	167.92	21/05/2014	Caricaceae	*Carica papaya*	Thysanoptera	Thripidae	*Scirtothrips inermis* Priesner, 1933	Y	Y	Beating
-29.04	167.99	24/12/2013; 25/12/2013; 24/03/2014	Rutaceae	*Citrus* sp.	Thysanoptera	Thripidae	*Scirtothrips inermis*	Y	Y	Hand collection from young leaves
-29.04	167.99	22/05/2014	Moraceae	*Morus* sp.	Thysanoptera	Thripidae	*Scirtothrips inermis*	Y	Y	Beating
-29.04	167.96	26/03/2014	Fabaceae, Alliaceae, various	*Pisum sativum*, *Allium cepa* var. *aggregatum*	Thysanoptera	Thripidae	*Scirtothrips inermis*	Y	Y	Hand collection
-29.02	167.96	25/12/2013	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Scirtothrips inermis*	Y		Hand collection
-29.04	167.96	22/12/2013	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Scirtothrips inermis*	Y	Y	Hand collection from leaves
-29.02	167.95	22/11/2014	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Scirtothrips inermis*	Y	Y	Hand collection from leaves
-29.01	167.94	23/12/2013	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Scirtothrips inermis*	Y	Y	Hand collection from leaves
-29.02	167.95	25/12/2013; 21/03/2014	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Scirtothrips inermis*	Y	Y	Hand collection from young leaves
-29.03	167.92	21/05/2014	Solanaceae	*Solanum lycopersicum*	Thysanoptera	Thripidae	*Scirtothrips inermis*	Y		Beating
-29.04	167.99	25/05/2014	Solanaceae	*Solanum tuberosum*	Thysanoptera	Thripidae	*Scirtothrips inermis*	Y	Y	Beating
-29.04	167.94	21/11/2014	Lamiaceae	*Vitex trifolia*	Thysanoptera	Thripidae	*Scirtothrips inermis*	Y	Y	Hand collection
-29.04	167.96	21/12/2013	Various		Thysanoptera	Thripidae	*Scirtothrips inermis*	Y	Y	Hand collection from leaves, flowers and grasses
-29.03	167.96	23/02/2014	NA	NA	Hemiptera	Ricaniidae	*Scolypopa australis* (Walker, 1851)	N	Y	Light trap #4
-29.05	167.95	20/02/2014	NA	NA	Lepidoptera	Geometridae	*Scopula optivata* (Walker, 1861)	N	Y	Light trap
-29.01	167.93	27/02/2014	NA	NA	Lepidoptera	Geometridae	*Scopula optivata*	N	Y	Light trap in eucalypt forest

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.93	22/02/2014	NA	NA	Lepidoptera	Geometridae	*Scopula optivata*	N	Y	Bucket light trap in orchard
-29.03	167.97	22/05/2014	NA	NA	Lepidoptera	Geometridae	*Scopula optivata*	N	Y	Light trap
-29.05	167.95	20/02/2014	NA	NA	Lepidoptera	Geometridae	*Scopula optivata*	N	Y	Light trap
-29.06	167.94	11/10/2014	Combretaceae	*Terminalia catappa*	Trombidiformes	Cunaxidae	*Scutopalus* Den Heyer, 1979	Y	N	Beating
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Trombidiformes	Cunaxidae	*Scutopalus* sp.	Y	N	Berlese funnel from leaf litter under palms
-29.00	167.93	12/06/2013	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Cunaxidae	*Scutopalus latisetosus* Den Heyer, 1979	Y	Y	Ethanol wash
-29.04	167.99	22/05/2014	Rutaceae	*Citrus* sp.	Coleoptera	Coccinellidae	*Scymnus* Kugelann, 1794	?	?	Beating
-29.13	167.95	14/10/2014	Rubiaceae	*Coprosma baueri*	Coleoptera	Coccinellidae	*Scymnus* sp.	?	?	Beating
-29.01	167.95	25/02/2014	Myrtaceae	*Psidium cattleyanum* var. *cattleyanum*	Coleoptera	Coccinellidae	*Scymnus* sp.	?	?	Hand collection
-29.06	167.97	25/05/2014	Unknown	Unknown	Coleoptera	Coccinellidae	*Scymnus* sp.	?	?	Beating
-29.03	167.99	22 - 23/03/2014	Various		Coleoptera	Coccinellidae	*Scymnus loewii* Mulsant, 1850	Y	N	Yellow pan
-29.00	167.93	26/12/2012	Lamiaceae, Brassicaceae, Musaceae	*Ocimum basilicum*, *Musa* sp.	Diptera	Sepsidae	*Sepsis* Fallén, 1810	?	?	Yellow pan
-29.02	167.97	24/02/2014	NA	NA	Diptera	Sepsidae	*Sepsis dissimilis* Brunetti, 1909	N	Y	Culicoides trap
-29.02	167.96	26/03/2014	Various		Diptera	Sepsidae	*Sepsis dissimilis*	N	Y	Yellow pan in orchard
-29.00	167.94	24/02/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Corylophidae	*Sericoderus* Stephens, 1829	?	?	Hand collection
-29.03	167.98	21/05/2014	Brassicaceae	*Brassica oleracea* var. *italica*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Beating
-29.04	167.96	9/10/2014	Caricaceae	*Carica papaya*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Beating
-29.00	167.93	12/06/2013	Caricaceae	*Carica papaya*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Beating leaves
-29.03	167.98	21/05/2014	Poaceae	*Cenchrus purpureus*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Sweep net
-29.05	167.96	9/10/2014	Rutaceae	*Citrus* sp.	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Beating
-29.03	167.94	24/05/2014	Asparagaceae	*Cordyline obtecta*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Sweep net
-29.04	167.97	26/05/2014	Rosaceae	*Fragaria ×ananassa*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Hand collection
-29.03	167.93	19/02/2014	Asteraceae	*Lactuca sativa*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.94	24/02/2014	Malvaceae	*Leguminaria patersonia*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Beating
-29.01	167.93	13/06/2013	Proteaceae	*Macadamia integrifolia*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Beating
-29.04	167.97	9/10/2014	Anacardiaceae	*Mangifera indica*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Sweep net and beating
-29.04	167.99	22/05/2014	Moraceae	*Morus* sp.	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Beating
-29.03	167.95	7/10/2014	NA	NA	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Light trap
-29.02	167.97	24/02/2014	NA	NA	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Culicoides trap
-29.02	167.92	12/10/2014	NA	NA	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Culicoides trap
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Light trap #3
-29.00	167.94	12/10/2014	NA	NA	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	*Culicoides* trap Set 12.10.14, collected 16.10.2014
-29.05	167.95	24/05/2014	NA	NA	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	*Culicoides* trap Set 21.5.2014, collected 24.5.2014
-29.02	167.97	24/05/2014	NA	NA	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	*Culicoides* trap Set 21.5.2014, collected 24.5.2014
-29.05	167.93	24/05/2014	NA	NA	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	*Culicoides* trap Set 24.5.2014, collected 27.5.2014
-29.05	167.92	7/10/2014	NA	NA	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	*Culicoides* trap Set 7.10.14, collected 11.10.14
-29.01	167.93	20/05/2014	Poaceae	*Paspalum* sp.	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Sweep net in eucalypt forest
-29.03	167.9	22/05/2014	Passifloraceae	*Passiflora edulis* f. *flavicarpa*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Beating
-29.00	167.93	20/02/2014	Lauraceae	*Persea americana*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Hand collection
-29.03	167.92	22/05/2014	Fabaceae	*Phaseolus vulgaris*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Beating
-29.03	167.99	14/06/2013; 20/02/2014	Fabaceae	*Phaseolus vulgaris*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Hand collection
-29.04	167.99	23/05/2014	Myrtaceae	*Psidium guajava*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Beating
-29.03	167.99	23/05/2014	Euphorbiaceae	*Ricinus communis*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Beating
-29.03	167.93	19/02/2014	Solanaceae	*Solanum lycopersicum*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Beating
-29.03	167.98	21/05/2014	Solanaceae	*Solanum lycopersicum*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Beating
-29.04	167.99	26/05/2014	Solanaceae	*Solanum mauritianum*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.05	167.92	24/05/2014	Poaceae	Unknown	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Sweep net
-29.03	167.92	22/05/2014	Vitaceae	*Vitis vinifera*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Beating grape vine growing over citrus
-29.05	167.98	24/02/2014	Asparagaceae	*Yucca aloifolia*	Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Beating
-29.00	167.93	23 - 24/03/2014	Various		Coleoptera	Corylophidae	*Sericoderus* sp.	?	?	Yellow pan
-29.01	167.93	26/02/2014	Myrtaceae	*Eucalyptus* sp.	Coleoptera	Curculionidae	*Sericotrogus subaenescens* Wollaston, 1873	N	Y	Hand collection
-29.05	167.93	12/07/2013	Fabaceae	*Medicago sativa*	Coleoptera	Curculionidae	*Sericotrogus subaenescens*	N	Y	Beating
-29.00	167.94	24/02/2014	Hemerocallidaceae	*Phormium tenax*	Coleoptera	Curculionidae	*Sericotrogus subaenescens*	N	Y	Beating
-29.03	167.97	7/10/2014	Araucariaceae	*Araucaria heterophylla*	Araneae	Thomisidae	*Sidymella longipes* (L.Koch, 1874)	Y	Y	Hand collection
-29.00	167.93	22/02/2014	NA	NA	Lepidoptera	Herminiidae	*Simplicia caenensalis* (Walker, 1859)	N	Y	Bucket light trap in orchard
-29.01	167.93	27/02/2014	NA	NA	Diptera	Simuliidae	*Simulium norfolkense* Dumbleton, 1969	N	N	Light trap in eucalypt forest
-29.03	167.98	25/09/2013	Solanaceae	*Solanum melongena*	Hemiptera	Flatidae	*Siphanta acuta* (Walker, 1851)	N	Y	Beating
-29.01	167.93	20/05/2014	Poaceae	*Paspalum* sp.	Hemiptera	Aphididae	*Sitobion* Mordvilko, 1914	Y	?	Sweep net in eucalypt forest
-29.03	167.99	21/02/2014	Poaceae	*Triticum* sp.	Hemiptera	Aphididae	*Sitobion* sp.	Y	?	Hand collection
-29.03	167.95	25/02/2014	NA	NA	Coleoptera	Curculionidae	*Sitophilus oryzae* (Linnaeus, 1763)	Y	Y	Hand collection
-29.00	167.93	20/02/2014	Asteraceae	*Lactuca sativa*	Hemiptera	Delphacidae	*Sogatella kolophon* (Kirkaldy, 1907)	Y	Y	Hand collection
-29.03	167.99	24/12/2012	Musaceae	*Musa* sp.	Hemiptera	Delphacidae	*Sogatella kolophon*	Y	Y	Yellow pan
-29.00	167.93	26/12/2012	Lamiaceae, Brassicaceae, Musaceae	*Ocimum basilicum*, *Musa* sp.	Hemiptera	Delphacidae	*Sogatella kolophon*	Y	Y	Yellow pan
-29.03	167.99	23/12/2012	Cucurbitaceae, Solanaceae	*Solanum melongena*	Hemiptera	Delphacidae	*Sogatella kolophon*	Y	Y	Yellow pan
-29.03	167.99	21/02/2014	Poaceae	*Triticum* sp.	Hemiptera	Delphacidae	*Sogatella kolophon*	Y	Y	Hand collection
-29.03	167.99	23/12/2012	Poaceae, Brassicaceae	*Zea mays*, *Brassica oleracea* var. *italica*	Hemiptera	Delphacidae	*Sogatella kolophon*	Y	Y	Yellow pan among old corn and young broccoli
-29.03	167.93	12/06/2013	Bromeliaceae	*Ananas comosus*	Hemiptera	Delphacidae	*Sogatella kolophon*	Y	Y	Sweep net
-29.01	167.94	30/11/2014	Rutaceae	*Citrus* sp.	Thysanoptera	Phlaeothripidae	*Sophiothrips martinae* Mound & Tree, 2014	Y	N	Hand collection from dead tree
-29.05	167.92	25/12/2013	Araucariaceae, Proteaceae	*Grevillea robusta*	Thysanoptera	Phlaeothripidae	*Sophiothrips martinae*	Y	N	Hand collection from dead wood
-29.02	167.96	26/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Phlaeothripidae	*Sophiothrips martinae*	Y	N	Hand collection from dead branch and moss
-29.01	167.94	22/10/2013	Scrophulariaceae	*Myoporum obscurum*	Thysanoptera	Phlaeothripidae	*Sophiothrips martinae*	Y	N	Hand collection from dead standing branches
-29.01	167.95	22/11/2014	Myrtaceae	*Psidium cattleyanum* var. *cattleyanum*	Thysanoptera	Phlaeothripidae	*Sophiothrips martinae*	Y	N	Hand collection from dead branch

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.95	25/12/2012; 26/12/2012	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Sophiothrips martinae*	Y	N	Hand collection
-29.03	167.93	22/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Sophiothrips martinae*	Y	N	Hand collection
-29.01	167.94	23/12/2012	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Sophiothrips martinae*	Y	N	Hand collection
-29.03	167.94	27/03/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Sophiothrips martinae*	Y	N	Hand collection from dead branches
-29.01	167.95	22/11/2014; 30/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Sophiothrips martinae*	Y	N	Hand collection from dead branches
-29.01	167.94	30/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Sophiothrips martinae*	Y	N	Hand collection from dead branches
-29.02	167.95	22/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Sophiothrips martinae*	Y	N	Hand collection
-29.02	167.95	24/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Sophiothrips martinae*	Y	N	Hand collection from dead wood
-29.01	167.94	30/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Sophiothrips martinae*	Y	N	Hand collection from dead wood
-29.01	167.95	30/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Sophiothrips martinae*	Y	N	Hand collection from dead wood
-29.01	167.94	22/10/2013	Various, Arecaceae	Unknown	Thysanoptera	Phlaeothripidae	*Sophiothrips martinae*	Y	N	Hand collection
-29.02	167.94	22/12/2013	Rutaceae	*Citrus ×jambhiri*	Thysanoptera	Phlaeothripidae	*Sophiothrips martinae*	Y	N	Hand collection from dead branches
-29.04	167.99	25/11/2014	Malvaceae	*Lagunaria patersonia*	Diptera	Tephritidae	*Spathulina acroleuca* (Schiner, 1868)	Y	Y	Hand collection
-29.03	167.99	24/12/2012	Musaceae	*Musa* sp.	Diptera	Tephritidae	*Spathulina acroleuca*	Y	Y	Yellow pan
-29.00	167.93	23 - 24/03/2014	Various		Diptera	Tephritidae	*Spathulina acroleuca*	Y	Y	Yellow pan
-29.00	167.93	24/10/2013	Various		Diptera	Syrphidae	*Sphaerophoria macrogaster* (Thomson, 1869)	Y	Y	Yellow pan among various young vegetables
-29.00	167.93	23/12/2012	Various		Diptera	Syrphidae	*Sphaerophoria macrogaster*	Y	Y	Yellow pan among various vegetables seedlings
-29.05	167.94	22/09/2013	Brassicaceae	*Brassica oleracea* var. *capitata*	Diptera	Syrphidae	*Sphaerophoria macrogaster*	Y	Y	Hand collection
-29.03	167.98	25/09/2013	Apiaceae	*Daucus carota*	Diptera	Syrphidae	*Sphaerophoria macrogaster*	Y	Y	Sweep net
-29.03	167.99	14/06/2013	Convolvulaceae	*Ipomoea batatas*	Diptera	Syrphidae	*Sphaerophoria macrogaster*	Y	Y	Sweep net
-29.05	167.93	13/06/2013	Fabaceae	*Medicago sativa*	Diptera	Syrphidae	*Sphaerophoria macrogaster*	Y	Y	Hand collection
-29.03	167.99	21/02/2014	Poaceae	*Triticum* sp.	Diptera	Syrphidae	*Sphaerophoria macrogaster*	Y	Y	Hand collection
-29.04	167.99	23/10/2013	Various		Diptera	Syrphidae	*Sphaerophoria macrogaster*	Y	Y	Yellow pan among various young vegetables
-29.06	167.96	17/07/2014	NA	NA	Diptera	Muscidae	*Spilogona* Schnabl, 1911	?	?	Bezzilure trap

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.06	167.96	12/06/2014	NA	NA	Diptera	Muscidae	*Spilogona* sp.	?	?	LuciLure trap
-29.05	167.98	12/06/2014	NA	NA	Diptera	Muscidae	*Spilogona* sp.	?	?	Bezzilure trap
-29.05	167.93	10/06/2014; 24/06/2014	NA	NA	Diptera	Muscidae	*Spilogona* sp.	?	?	Bezzilure trap
-29.03	167.93	10/06/2014	NA	NA	Diptera	Muscidae	*Spilogona* sp.	?	?	Bezzilure trap
-29.02	167.97	2/07/2014	NA	NA	Diptera	Muscidae	*Spilogona* sp.	?	?	Blowfly trap
-29.02	167.92	10/06/2014	NA	NA	Diptera	Muscidae	*Spilogona* sp.	?	?	LuciLure trap
-29.01	167.56	2/07/2014	NA	NA	Diptera	Muscidae	*Spilogona* sp.	?	?	Blowfly trap
-29.00	167.93	21/02/2014	NA	NA	Diptera	Muscidae	*Spilogona* sp.	?	?	Bucket light trap
-29.03	167.96	23/02/2014	NA	NA	Diptera	Muscidae	*Spilogona* sp.	?	?	Light trap #4
-29.03	167.96	20/02/2014	NA	NA	Diptera	Muscidae	*Spilogona* sp.	?	?	Light trap #3
-29.02	167.97	22/09/2013	NA	NA	Trombidiformes	Bdellidae	*Spinibdella cronini* (Baker & Balock, 1944)	Y	Y	Hand collection from soil
-29.05	167.96	9/10/2014	Cucurbitaceae	*Sechium edule*	Trombidiformes	Bdellidae	*Spinibdella* Thor, 1930	Y	?	Hand collection
-29.02	167.96	13/10/2014	Araucariaceae	*Araucaria heterophylla*	Stylommatophora	Succineidae	*Spiraccinea norfolkensis* (Sykes, 1900)	N	N	Hand collection from tree felled 10 months prior
-29.05	167.95	20/02/2014	NA	NA	Lepidoptera	Noctuidae	*Spodoptera litura* (Fabricius, 1775)	N	Y	Light trap
-29.05	167.92	19/05/2014	NA	NA	Lepidoptera	Noctuidae	*Spodoptera litura*	N	Y	Light trap
-29.00	167.93	22/02/2014	NA	NA	Lepidoptera	Noctuidae	*Spodoptera litura*	N	Y	Bucket light trap in orchard
-29.03	167.98	21/05/2014	Solanaceae	*Solanum lycopersicum*	Lepidoptera	Noctuidae	*Spodoptera litura*	N	Y	Beating
-29.03	167.98	14/06/2013	Solanaceae	*Solanum melongena*	Lepidoptera	Noctuidae	*Spodoptera litura*	N	Y	Hand collection
-29.04	167.99	25/05/2014	Solanaceae	*Solanum tuberosum*	Lepidoptera	Noctuidae	*Spodoptera litura*	N	Y	Beating
-29.00	167.93	20/02/2014	Brassicaceae	*Brassica oleracea* var. *italica*	Lepidoptera	Noctuidae	*Spodoptera litura*	N	Y	Hand collection (larva)
-29.05	167.92	19/05/2014	NA	NA	Lepidoptera	Noctuidae	*Spodoptera mauritia* (Boisduval, 1833)	N	Y	Light trap
-29.04	167.94	28/02/2014	NA	NA	Lepidoptera	Noctuidae	*Spodoptera mauritia*	N	Y	Light trap
-29.03	167.96	19/02/2014	NA	NA	Lepidoptera	Noctuidae	*Spodoptera mauritia*	N	Y	Light trap
-29.03	167.96	23/02/2014	NA	NA	Lepidoptera	Noctuidae	*Spodoptera mauritia*	N	Y	Light trap
-29.01	167.94	24/02/2014	NA	NA	Lepidoptera	Noctuidae	*Spodoptera mauritia*	N	Y	Light trap
-29.03	167.95	20/05/2014	NA	NA	Lepidoptera	Noctuidae	*Spodoptera mauritia*	N	Y	Hand collection (eggs)

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.93	21/05/2014	NA	NA	Lepidoptera	Noctuidae	*Spodoptera mauritia*	N	Y	Light trap in eucalypt forest
-29.01	167.94	27/02/2014	NA	NA	Lepidoptera	Noctuidae	*Spodoptera mauritia*	N	Y	Light trap in eucalypt forest
-29.03	167.96	25/05/2014	NA	NA	Lepidoptera	Noctuidae	*Spodoptera mauritia*	N	Y	Light trap
-29.00	167.93	22/02/2014	NA	NA	Lepidoptera	Noctuidae	*Spodoptera mauritia*	N	Y	Bucket light trap in orchard
-29.03	167.97	22/05/2014	NA	NA	Lepidoptera	Noctuidae	*Spodoptera mauritia*	N	Y	Light trap
-29.03	167.98	21/05/2014	Solanaceae	*Solanum lycopersicum*	Lepidoptera	Noctuidae	*Spodoptera mauritia*	N	Y	Beating
-29.05	167.95	20/02/2014	NA	NA	Lepidoptera	Noctuidae	*Spodoptera mauritia*	N	Y	Light trap
-29.04	167.94	28/02/2014	NA	NA	Lepidoptera	Crambidae	*Spoladea recurvalis* (Fabricius, 1775)	N	Y	Light trap
-29.03	167.96	19/02/2014	NA	NA	Lepidoptera	Crambidae	*Spoladea recurvalis*	N	Y	Light trap
-29.01	167.93	27/02/2014	NA	NA	Lepidoptera	Crambidae	*Spoladea recurvalis*	N	Y	Light trap in eucalypt forest
-29.00	167.93	22/02/2014	NA	NA	Lepidoptera	Crambidae	*Spoladea recurvalis*	N	Y	Bucket light trap in orchard
-29.03	167.99	20/02/2014	Polygonaceae, Asteraceae	*Rheum rhabarbarum*, *Bidens pilosa*	Lepidoptera	Crambidae	*Spoladea recurvalis*	N	Y	Sweep net
-29.02	167.98	14/06/2013	Solanaceae	*Solanum melongena*	Lepidoptera	Crambidae	*Spoladea recurvalis*	N	Y	Observation
-29.05	167.95	20/02/2014	NA	NA	Lepidoptera	Crambidae	*Spoladea recurvalis*	N	Y	Light trap
-29.02	167.96	13/10/2014	Araucariaceae	*Araucaria heterophylla*	Araneae	Theridiidae	*Steatoda* Sundevall, 1833	Y	?	Hand collection from tree felled 10 months prior
-29.12	167.95	14/10/2014	NA	NA	Araneae	Theridiidae	*Steatoda* sp.	Y	?	Hand collection from rock
-29.05	167.94	22/09/2013	Unknown	Unknown	Araneae	Theridiidae	*Steatoda capensis* Hann, 1990	Y	Y	Hand collection from timber pile
-29.02	167.97	21/05/2014	Unknown	Unknown	Araneae	Theridiidae	*Steatoda capensis*	Y	Y	Hand collection from under discarded timber
-29.05	167.92	24/05/2014; 2/12/2014	Araucariaceae	*Araucaria heterophylla*	Araneae	Theridiidae	*Steatoda capensis*	Y	Y	Hand collection from fallen log
-29.00	167.93	23 - 24/03/2014	Various		Diptera	Lauxaniidae	*Steganopsis melanogaster* (Thomson, 1869)	Y	Y	Yellow pan
-29.02	167.96	26/03/2014	Various		Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	Yellow pan in orchard
-29.04	167.93	18/02/2014	Alliaceae	*Allium cepa*	Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	Hand collection
-29.05	167.94	22/09/2013	Brassicaceae	*Brassica oleracea* var. *capitata*	Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	Hand collection
-29.03	167.98	25/09/2013	Apiaceae	*Daucus carota*	Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	Sweep net
-29.03	167.99	21/02/2014	Fabaceae	*Glycine max*	Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	23/12/2012	Convolvulaceae	*Ipomoea batatas*	Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	Sweep net
-29.00	167.93	20/02/2014	Convolvulaceae	*Ipomoea batatas*	Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	Hand collection
-29.05	167.93	12/07/2013	Fabaceae	*Medicago sativa*	Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	Beating
-29.04	167.99	23/05/2014	Moraceae	*Morus* sp.	Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	Beating
-29.05	167.97	17/07/2014	NA	NA	Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	Bezzilure trap
-29.03	167.98	2/06/2014; 2/07/2014; 17/07/2014; 25/08/2014	NA	NA	Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	LuciLure trap
-29.01	167.95	25/12/2012	Lomariopsidaceae	*Nephrolepis* sp.	Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	Yellow pan
-29.04	167.96	10/10/2014	Apiaceae	*Petroselinum crispum*	Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	Beating bananas
-29.04	167.99	8/10/2014	Fabaceae	*Phaseolus vulgaris*	Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	Sweep net among corn
-29.02	167.97	22/12/2012	Polygonaceae	*Rumex brownii*	Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	Sweep net among dead sees heads
-29.04	167.94	23/09/2013	Anacardiaceae	*Schinus terebinthifolius*	Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	Sweep net
-29.05	167.92	24/05/2014	Poaceae	Unknown	Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	Sweep net
-29.03	167.99	23/10/2013	Various		Diptera	Lauxaniidae	*Steganopsis melanogaster*	Y	Y	Yellow pan
-29.02	167.93	27/11/2014	Fabaceae	*Trifolium* sp.	Trombidiformes	Tarsonemidae	*Steneotarsonemus* Beer, 1954	Y	?	Ethanol wash
-29.03	167.94	27/11/2014	Bromeliaceae	*Ananas comosus*	Trombidiformes	Tarsonemidae	*Steneotarsonemus ananas* (Tryon, 1898)	Y	Y	Ethanol wash
-29.03	167.97	27/11/2014	NA	NA	Hemiptera	Reduviidae	*Stenolemus fraterculus* Wygodzinsky, 1956	N	Y	Light trap
-29.02	167.95	24/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Stephanothrips barretti* Mound, 1972	Y	Y	Hand collection from dead wood
-29.01	167.94	22/12/2012	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Stephanothrips barretti*	Y	Y	Hand collection from ground
-29.04	167.99	24/03/2014	Rutaceae	*Citrus* sp.	Thysanoptera	Phlaeothripidae	*Stephanothrips occidentalis* Hood & Williams, 1925	Y	Y	Hand collection from young leaves
-29.02	167.92	23/10/2013	Myrtaceae	*Eucalyptus* sp.	Thysanoptera	Phlaeothripidae	*Stephanothrips occidentalis*	Y	Y	Hand collection from dead twigs
-29.04	167.99	24/12/2013	Rutaceae, Moraceae, unknown	*Murraya* sp., *Morus* sp.	Thysanoptera	Phlaeothripidae	*Stephanothrips occidentalis*	Y	Y	Hand collection
-29.02	167.96	9/07/2013	Musaceae	*Musa* sp.	Thysanoptera	Phlaeothripidae	*Stephanothrips occidentalis*	Y	Y	Hand collection from dead leaves
-29.03	167.99	22/03/2014	Meliaceae	*Toona ciliata*	Thysanoptera	Phlaeothripidae	*Stephanothrips occidentalis*	Y	Y	Hand collection from dead branch

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.02	167.95	22/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Stephanothrips occidentalis*	Y	Y	Hand collection
-29.03	167.93	22/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Stephanothrips occidentalis*	Y	Y	Hand collection from dead wood
-29.02	167.96	25/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Stephanothrips occidentalis*	Y	Y	Hand collection from dead wood
-29.01	167.94	24/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Stephanothrips occidentalis*	Y	Y	Hand collection from dead wood
-29.04	167.99	25/11/2014	Arecaceae, Fabaceae, Araceae, Fabaceae		Thysanoptera	Phlaeothripidae	*Stephanothrips occidentalis*	Y	Y	Hand collection from dead palm leaves, dead pea pods
-29.06	167.94	11/10/2014	Rutaceae	*Citrus* sp.	Coleoptera	Coccinellidae	*Stethorus obscuripennis* (Lea, 1929)	N	N	Beating
-29.02	167.97	22/09/2013	Araceae	*Colocasia esculenta*	Coleoptera	Coccinellidae	*Stethorus obscuripennis*	N	N	Hand collection
-29.04	167.99	22/05/2014	Moraceae	*Morus* sp.	Coleoptera	Coccinellidae	*Stethorus obscuripennis*	N	N	Beating
-29.06	167.94	11/10/2014	Rosaceae	*Prunus persica* var. *persica*	Coleoptera	Coccinellidae	*Stethorus obscuripennis*	N	N	Beating
-29.04	167.99	25/05/2014	Ammonaceae	*Annona reticulata*	Coleoptera	Coccinellidae	*Stethorus obscuripennis*	N	N	Beating
-29.00	167.93	24/10/2013	Various		Diptera	Calliphoridae	*Stomorhina discolor* (Fabricius, 1794)	Y	Y	Yellow pan among various young vegetables
-29.02	167.96	25/12/2012	Cucurbitaceae		Diptera	Calliphoridae	*Stomorhina discolor*	Y	Y	Beating flowers
-29.04	167.99	23/05/2014	Rutaceae	*Citrus* sp.	Diptera	Calliphoridae	*Stomorhina discolor*	Y	Y	Sweep net
-29.06	167.96	12/06/2014; 28/08/2014	NA	Unknown	Diptera	Calliphoridae	*Stomorhina discolor*	Y	Y	LuciLure trap
-29.05	167.97	25/10/2014; 2/07/2014; 12/06/2014; 24/06/2014	NA	Unknown	Diptera	Calliphoridae	*Stomorhina discolor*	Y	Y	Bezzilure trap
-29.03	167.98	2/07/2014; 24/06/2014; 17/07/2014	NA	Unknown	Diptera	Calliphoridae	*Stomorhina discolor*	Y	Y	LuciLure trap
-29.02	167.97	2/07/2014; 17/07/2014	NA	Unknown	Diptera	Calliphoridae	*Stomorhina discolor*	Y	Y	LuciLure trap
-29.06	167.94	22/09/2013	Various		Diptera	Calliphoridae	*Stomorhina discolor*	Y	Y	Sweep net
-29.01	167.92	24/02/2014	NA	NA	Diptera	Muscidae	*Stomoxys calcitrans* (Linnaeus, 1758)	N	Y	*Culicoides* trap
-29.00	167.93	26/12/2012	Musaceae, Asteraceae	*Musa* sp., *Lactuca sativa*	Diptera	Muscidae	*Stomoxys calcitrans*	N	Y	Yellow pan
-29.06	167.94	11/10/2014	Rutaceae	*Citrus* sp.	Coleoptera	Curculionidae	*Storeus* Schoenherr, 1843	Y	?	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.93	20/02/2014	Cucurbitaceae	*Cucumis melo*	Coleoptera	Curculionidae	*Storeus* sp.	Y	?	Sweep net
-29.03	167.94	23/05/2014	Oleaceae	*Nestegis apetala*	Coleoptera	Curculionidae	*Storeus* sp.	Y	?	Trapping
-29.01	167.94	25/02/2014	Unknown	Unknown	Coleoptera	Curculionidae	*Storeus* sp.	Y	?	Hand collection
-29.02	167.96	25/11/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus* (Girault, 1929)	Y	Y	Hand collection from dead tree
-29.02	167.95	20/12/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead branches
-29.05	167.92	25/12/2013	Araucariaceae, Proteaceae	*Araucaria heterophylla*, *Grevillea robusta*	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead wood
-29.04	167.99	25/11/2014	Rutaceae	*Citrus* sp.	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection
-29.01	167.94	30/11/2014	Rutaceae	*Citrus* sp.	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead tree
-29.01	167.94	11/07/2013	Asparagaceae	*Cordyline obtecta*	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead leaves from dead leaves
-29.04	167.99	23/11/2014	Celastraceae	*Elaeodendron curtipendulum*	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead branches
-29.05	167.93	12/07/2013	Proteaceae	*Grevillea robusta*	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection
-29.02	167.96	26/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead branch and moss
-29.05	167.93	25/12/2013	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from leaves
-29.02	167.96	29/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection
-29.01	167.95	22/11/2014	Myrtaceae	*Psidium cattleyanum* var. *cattleyanum*	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead branch
-29.02	167.96	25/11/2014	Meliaceae	*Toona ciliata*	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead tree
-29.03	167.99	9/07/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead branches
-29.03	167.93	22/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead branches
-29.01	167.94	24/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead branches
-29.01	167.95	30/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead branches
-29.01	167.95	26/10/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection
-29.02	167.95	25/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead branches

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.94	30/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead branches
-29.02	167.96	27/12/2012	Arecaceae	Unknown	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead leaves
-29.01	167.94	30/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection dead mossy branch
-29.02	167.95	22/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead twigs
-29.02	167.95	22/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead twigs and leaves
-29.05	167.92	26/03/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead wood
-29.02	167.96	25/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead wood
-29.01	167.94	24/11/2014; 30/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection from dead wood
-29.02	167.96	26/11/2014	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection, berlesate from leaf litter
-29.02	167.95	21/12/2013	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Phlaeothripidae	*Strepterothrips tuberculatus*	Y	Y	Hand collection
-29.02	167.94	25/05/2014	NA	NA	Hymenoptera	Formicidae	*Strumigenys perplexa* (Smith, 1876)	N	Y	Trapping from leaf litter
-29.02	167.92	25/05/2014	Myrtaceae	*Eucalyptus* sp.	Hymenoptera	Formicidae	*Strumigenys perplexa*	N	Y	Trapping from eucalypt leaf litter
-29.01	167.93	13/06/2013	Rubiaceae	*Coffea arabica*	Diptera	Anisopodidae	*Sylvicola dubius* (Macquart, 1850)	Y	Y	Hand collection
-29.03	167.97	21/05/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Sympiezoscelus norfolcensis* Lea, 1913	N	N	Hand collection from sawn timber
-29.03	167.97	18/02/2014	NA	NA	Coleoptera	Curculionidae	*Sympiezoscelus norfolcensis*	N	N	Hand collection from timber billets
-29.03	167.96	20/02/2014	NA	NA	Coleoptera	Curculionidae	*Sympiezoscelus norfolcensis*	N	Y	Light trap #3
-29.03	167.97	27/11/2014	NA	NA	Coleoptera	Curculionidae	*Sympiezoscelus norfolcensis*	N	Y	Light trap
-29.03	167.96	25/09/2013	NA	NA	Coleoptera	Curculionidae	*Sympiezoscelus norfolcensis*	N	Y	Hand collection
-29.02	167.93	25/02/2014	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Sympiezoscelus norfolcensis*	N	N	Hand collection from under bark of billets
-29.03	167.99	23/12/2012	Poaceae, Brassicaceae	*Zea mays*, *Brassica oleracea* var. *italica*	Hemiptera	Delphacidae	*Syndelphax disonymos* (Kirkaldy, 1907)	Y	Y	Yellow pan among old corn and young broccoli
-29.05	167.97	24/06/2014; 2/07/2014	NA	NA	Diptera	Muscidae	*Synthesiomyia nudiseta* (Wulp, 1883)	N	Y	Bezzilure trap
-29.03	167.98	24/06/2014; 17/07/2014	NA	NA	Diptera	Muscidae	*Synthesiomyia nudiseta*	N	Y	LuciLure trap
-29.02	167.97	17/07/2014	NA	NA	Diptera	Muscidae	*Synthesiomyia nudiseta*	N	Y	LuciLure trap

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.92	10/06/2014; 24/06/2014	NA	NA	Diptera	Muscidae	*Syntheciomyia mdiseta*	N	Y	LuciLure trap
-29.05	167.93	24/06/2014	NA	NA	Diptera	Muscidae	*Syntheciomyia mdiseta*	N	Y	Bezzilure trap
-29.05	167.97	24/02/2014	Asteraceae	*Conyza* sp.	Hymenoptera	Formicidae	*Tapinoma melanocephalum* (Fabricius, 1793)	N	Y	Hand collection
-29.03	167.93	19/02/2014	Solanaceae	*Solanum lycopersicum*	Hymenoptera	Formicidae	*Tapinoma melanocephalum*	N	Y	Beating
-29.05	167.97	24/02/2014	Caricaceae	*Carica papaya*	Hymenoptera	Formicidae	*Tapinoma melanocephalum*	N	Y	Hand collection
-29.03	167.97	7/10/2014	NA	NA	Hymenoptera	Formicidae	*Tapinoma*?	?	?	Light trap Set 6.10.14, collected 7.10.14
-29.03	167.94	27/11/2014	Bromeliaceae	*Ananas comosus*	Trombidiformes	Tarsonemidae	*Tarsonemus* Cacstrini & Fanzago, 1876	Y	?	Ethanol wash
-29.04	167.99	27/11/2014	Annonaceae	*Annona muricata*	Trombidiformes	Tarsonemidae	*Tarsonemus* sp.	Y	?	Ethanol wash
-29.04	167.99	27/11/2014	Anacardiaceae	*Mangifera indica*	Trombidiformes	Tarsonemidae	*Tarsonemus* sp.	Y	?	Ethanol wash
-29.04	167.95	26/11/2014	Passifloraceae	*Passiflora edulis*	Trombidiformes	Tarsonemidae	*Tarsonemus* sp.	Y	?	Ethanol wash
-29.03	167.93	26/09/2013	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Tarsonemidae	*Tarsonemus* nov. sp. ?	Y	?	Hand collection
-29.00	167.93	12/06/2013	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Tarsonemidae	*Tarsonemus* nov. sp. ?	Y	?	Ethanol wash
-29.00	167.93	24/09/2013	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Tarsonemidae	*Tarsonemus* nov. sp. ?	Y	?	Hand collection
-29.03	167.92	22/05/2014	Vitaceae	*Vitis vinifera*	Hemiptera	Miridae	*Taylorilygus*?	?	?	Beating grape vine growing over citrus
-29.06	167.94	11/10/2014	Caricaceae	*Carica papaya*	Hymenoptera	Formicidae	*Technomyrmex* Mayr, 1872	?	?	Beating
-29.04	167.96	9/10/2014	Caricaceae	*Carica papaya*	Hymenoptera	Formicidae	*Technomyrmex* sp.	?	?	Beating
-29.05	167.93	23/05/2014	Rubiaceae	*Coffea* sp.	Hymenoptera	Formicidae	*Technomyrmex* sp.	?	?	Hand collection
-29.04	167.96	10/10/2014	Apocynaceae	*Nerium oleander*	Hymenoptera	Formicidae	*Technomyrmex* sp.	?	?	Beating and hand collection
-29.04	167.94	23/09/2013	Euphorbiaceae	*Baloghia inophylla*	Hymenoptera	Formicidae	*Technomyrmex jocosus* Forel, 1910	N	Y	Observation
-29.04	167.97	25/05/2014	Iridaceae	*Iris domestica* (L.) Goldblatt & Mabb.	Hymenoptera	Formicidae	*Technomyrmex jocosus*	N	Y	Beating
-29.03	167.95	22/05/2014	Araliaceae	*Meryta* sp.	Hymenoptera	Formicidae	*Technomyrmex jocosus*	N	Y	Hand collection
-29.03	167.94	23/09/2013	NA	NA	Hymenoptera	Formicidae	*Technomyrmex jocosus*	N	Y	Hand collection
-29.06	167.94	22/09/2013	Lauraceae	*Persea americana*	Hymenoptera	Formicidae	*Technomyrmex jocosus*	N	Y	Hand collection
-29.05	167.96	9/10/2014	Vitaceae	*Vitis vinifera*	Hymenoptera	Formicidae	*Technomyrmex jocosus*	N	Y	Beating
-29.03	167.95	11/06/2013	Vitaceae	*Vitis vinifera*	Hymenoptera	Formicidae	*Technomyrmex jocosus*	N	Y	Hand collection
-29.05	167.98	24/02/2014	Asparagaceae	*Yucca aloifolia*	Hymenoptera	Formicidae	*Technomyrmex jocosus*	N	Y	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.02	167.93	27/09/2013	Araucariaceae	*Araucaria heterophylla*	Hymenoptera	Formicidae	*Technomyrmex jocosus*	N	Y	Hand collection
-29.01	167.93	27/02/2014	NA	NA	Orthoptera	Gryllidae	*Teleogryllus oceanicus* (Le Guillou, 1841)	N	Y	Light trap in eucalypt forest
-29.05	167.95	20/02/2014	NA	NA	Orthoptera	Gryllidae	*Teleogryllus oceanicus*	N	Y	Light trap
-29.03	167.97	18/02/2014	Verbenaceae	*Lantana camara*	Hemiptera	Tingidae	*Teleonemia scrupulosa* Stål, 1873	N	Y	Beating
-29.01	167.93	13/06/2013	Verbenaceae	*Lantana camara*	Hemiptera	Tingidae	*Teleonemia scrupulosa*	N	Y	Hand collection
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Hypsogastropoda	Assimineidae	*Telmosena suteri* (Sykes, 1900)	N	N	Berlese funnel from leaf litter under palms
-29.05	167.93	24/09/2013	Araucariaceae	*Araucaria heterophylla*	Hypsogastropoda	Assimineidae	*Telmosena suteri*	N	N	Hand collection from felled tree
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Collembola	Sminthuridae	*Temeritas* Delamare-Deboutteville & Massoud, 1963 sp. nov	Y	?	Berlese funnel from leaf litter under palms
-29.03	167.94	28/11/2014	Asteraceae	*Hieracium* sp.	Thysanoptera	Thripidae	*Tenothrips frici* (Uzel, 1895)	Y	Y	Hand collection from flowers
-29.02	167.96	26/11/2014	Asteraceae	*Hieracium* sp.	Thysanoptera	Thripidae	*Tenothrips frici*	Y	Y	Hand collection from flowers
-29.02	167.96	25/11/2014	Asteraceae	*Hieracium* sp., *Taraxacum* F.H.Wigg.	Thysanoptera	Thripidae	*Tenothrips frici*	Y	Y	Hand collectiofrom flowers
-29.03	167.93	27/11/2014	Asteraceae	*Taraxacum* sp.	Thysanoptera	Thripidae	*Tenothrips frici*	Y	Y	Hand collection
-29.01	167.92	25/11/2014	Asteraceae	Unknown	Thysanoptera	Thripidae	*Tenothrips frici*	Y	Y	Hand collection
-29.03	167.99	22/12/2013	Asteraceae	*Hieracium* sp.	Thysanoptera	Thripidae	*Tenothrips frici*	Y	Y	Hand collection from flowers
-29.02	167.96	10/06/2013	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Tenuipalpidae	*Temuipalpus* Donnadieu, 1876	?	?	Hand collection
-29.02	167.93	27/11/2014	Rutaceae	*Zanthoxylum pinnatum*	Trombidiformes	Tenuipalpidae	*Temuipalpus antipodus* Collyer, 1964	Y	N	Ethanol wash
-29.02	167.93	27/11/2014	Cannabaceae	*Celtis paniculata*	Trombidiformes	Tenuipalpidae	*Temuipalpus antipodus*	Y	N	Ethanol wash
-29.04	167.96	10/10/2014	Musaceae	*Musa* sp.	Araneae	Tetragnathidae	*Tetragnatha* Latreille, 1804	?	?	Beating
-29.03	167.97	7/10/2014	NA	NA	Araneae	Tetragnathidae	*Tetragnatha obtusa* Koch, 1837	Y	N	Light trap Set 6.10.14, collected 7.10.14
-29.02	167.93	12/10/2014	Araucariaceae	*Araucaria heterophylla*	Hymenoptera	Formicidae	*Tetramorium bicarinatum* (Nylander, 1846)	N	Y	Hand collection from felled tree #7 (workers)
-29.06	167.94	26/02/2014	Asteraceae	*Bidens pilosa*	Hymenoptera	Formicidae	*Tetramorium bicarinatum*	N	Y	Hand collection
-29.05	167.97	24/02/2014	Rutaceae	*Citrus* sp.	Hymenoptera	Formicidae	*Tetramorium bicarinatum*	N	Y	Hand collection
-29.00	167.93	20/02/2014	Convolvulaceae	*Ipomoea batatas*	Hymenoptera	Formicidae	*Tetramorium bicarinatum*	N	Y	Hand collection
-29.03	167.96	19/02/2014	NA	NA	Hymenoptera	Formicidae	*Tetramorium bicarinatum*	N	Y	Light trap

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.02	167.97	24/02/2014	NA	NA	Hymenoptera	Formicidae	*Tetramorium bicarinatum*	N	Y	Culicoides trap
-29.02	167.97	22/09/2013	NA	NA	Hymenoptera	Formicidae	*Tetramorium bicarinatum*	N	Y	Hand collection
-29.02	167.96	26/09/2013	NA	NA	Hymenoptera	Formicidae	*Tetramorium bicarinatum*	N	Y	Hand collection from soil
-29.01	167.93	27/02/2014	NA	NA	Hymenoptera	Formicidae	*Tetramorium bicarinatum*	N	Y	Light trap from eucalypt forest
-29.03	167.97	20/02/2014	NA	NA	Hymenoptera	Formicidae	*Tetramorium bicarinatum*	N	Y	Light trap #3
-29.04	167.94	23/09/2013	Anacardiaceae	*Schinus terebinthifolius*	Hymenoptera	Formicidae	*Tetramorium bicarinatum*	N	Y	Sweep net
-29.02	167.96	26/09/2013	Solanaceae	*Solanum melongena*	Hymenoptera	Formicidae	*Tetramorium bicarinatum*	N	Y	Hand collection
-29.05	167.98	24/02/2014	Unknown	Unknown	Hymenoptera	Formicidae	*Tetramorium bicarinatum*	N	Y	Beating
-29.03	167.93	26/09/2013	Bromeliaceae	*Ananas comosus*	Hymenoptera	Formicidae	*Tetramorium bicarinatum*	N	Y	Hand collection
-29.04	167.94	23/09/2013	NA	NA	Hymenoptera	Formicidae	*Tetramorium caldarium* (Roger, 1857)	N	N	Hand collection from soil
-29.06	167.95	27/09/2013	NA	NA	Hymenoptera	Formicidae	*Tetramorium caldarium*	N	N	Hand collection from soil
-29.02	167.96	13/10/2014	Araucariaceae	*Araucaria heterophylla*	Hymenoptera	Formicidae	*Tetramorium similimum* (Smith, 1851)	N	Y	Hand collection from tree felled 10 months prior
-29.03	167.97	7/10/2014	Araucariaceae	*Araucaria heterophylla*	Hymenoptera	Formicidae	*Tetramorium similimum*	N	Y	Hand collection
-29.03	167.97	18/02/2014	NA	NA	Hymenoptera	Formicidae	*Tetramorium similimum*	N	Y	Hand collection from timber
-29.02	167.96	26/03/2014	Various		Hymenoptera	Formicidae	*Tetramorium similimum*	N	Y	Yellow pan
-29.12	167.95	14/10/2014	Asteraceae	*Bidens pilosa*	Trombidiformes	Tetranychidae	*Tetranychus* Dufour, 1832	Y	?	Hand collection
-29.04	167.99	27/11/2014	Passifloraceae	*Passiflora edulis*	Trombidiformes	Tetranychidae	*Tetranychus* sp.	Y	?	Ethanol wash
-29.03	167.93	27/11/2014	Fabaceae	*Phaseolus vulgaris*	Trombidiformes	Tetranychidae	*Tetranychus* sp.	Y	?	Ethanol wash
-29.03	167.95	11/06/2013	Apocynaceae	*Plumeria rubra*	Trombidiformes	Tetranychidae	*Tetranychus* sp.	Y	?	Hand collection
-29.12	167.95	14/10/2014	Cucurbitaceae	*Zehneria baueriana*	Trombidiformes	Tetranychidae	*Tetranychus* sp.	Y	?	Hand collection
-29.02	167.93	27/11/2014	Fabaceae	*Trifolium* sp.	Trombidiformes	Tetranychidae	*Tetranychus lambi* Pritchard & Baker, 1955	Y	Y	Ethanol wash
-29.04	167.94	23/11/2014	Hemerocallidaceae	*Hemerocallis* sp.	Trombidiformes	Tetranychidae	*Tetranychus lambi*	Y	Y	Ethanol wash
-29.02	167.97	22/09/2013	Araceae	*Colocasia esculenta*	Trombidiformes	Tetranychidae	*Tetranychus lombardinii* Baker & Pritchard, 1960	Y	Y	Hand collection
-29.02	167.94	24/11/2014	Musaceae	*Musa* sp.	Trombidiformes	Tetranychidae	*Tetranychus neocaledonicus* (André, 1933)	Y	Y	Ethanol wash
-29.04	167.95	24/11/2014	Fabaceae	*Phaseolus* sp.	Trombidiformes	Tetranychidae	*Tetranychus neocaledonicus*	Y	Y	Ethanol wash
-29.04	167.98	27/11/2014	Vitaceae	*Vitis vinifera*	Trombidiformes	Tetranychidae	*Tetranychus neocaledonicus*	Y	Y	Ethanol wash

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.99	24/11/2014	Musaceae	*Musa* sp.	Trombidiformes	Tetranychidae	*Tetranychus neocaledonicus*	Y	Y	Ethanol wash
-29.04	167.96	4/12/2014	Rosaceae	*Rosa* sp.	Trombidiformes	Tetranychidae	*Tetranychus urticae* Koch, 1835	Y	Y	Hand collection
-29.04	167.96	10/10/2014	Musaceae	*Musa* sp.	Araneae	Theridiidae	*Theridion* Walckenaer, 1805	?	?	Beating
-29.06	167.94	11/10/2014	Rutaceae	*Citrus* sp.	Araneae	Theridiidae	*Theridion* sp.	?	?	Beating
-29.05	167.95	12/10/2014	NA	NA	Hymenoptera	Ichneumonidae	c.f *Theronia*	Y	?	Light trap
-29.03	167.95	7/10/2014	NA	NA	Hymenoptera	Ichneumonidae	c.f *Theronia*	Y	?	Light trap
-29.01	167.94	24/12/2013	Euphorbiaceae, Oleaceae	*Baloghia inophylla*, *Jasminum* sp.	Thysanoptera	Thripidae	*Thrips* Linnaeus, 1758 sp. nov.	Y	N	Hand collection
-29.02	167.94	26/03/2014	Sapindaceae	*Dodonaea viscosa* subsp. *viscosa*	Thysanoptera	Thripidae	*Thrips* sp. nov.	Y	N	Hand collection from leaves
-29.01	167.94	22/03/2014; 26/03/2014	Scrophulariaceae	*Myoporum obscurum*	Thysanoptera	Thripidae	*Thrips* sp. nov.	Y	N	Hand collection
-29.01	167.94	22/03/2014	Scrophulariaceae	*Myoporum obscurum*	Thysanoptera	Thripidae	*Thrips* sp. nov.	Y	N	Hand collection
-29.01	167.94	24/03/2014	Scrophulariaceae	*Myoporum obscurum*	Thysanoptera	Thripidae	*Thrips* sp. nov.	Y	N	Hand collection
-29.01	167.94	24/11/2014	Scrophulariaceae	*Myoporum obscurum*	Thysanoptera	Thripidae	*Thrips* sp. nov.	Y	N	Hand collection from flowers
-29.04	167.96	24/11/2014	Scrophulariaceae	*Myoporum obscurum*	Thysanoptera	Thripidae	*Thrips* sp. nov.	Y	N	Hand collection
-29.01	167.94	24/10/2013	Arecaceae, Scrophulariaceae	Unknown, *Myoporum* sp.	Thysanoptera	Thripidae	*Thrips* sp. nov.	Y	N	Hand collection from dead palm fronds
-29.02	167.95	22/11/2014	Asteraceae	*Bidens pilosa*	Thysanoptera	Thripidae	*Thrips australis* (Bagnall, 1915)	Y	Y	Hand collection from flowers
-29.03	167.92	23/11/2014	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Thripidae	*Thrips australis*	Y	Y	Hand collection
-29.03	167.94	10/10/2014	Rutaceae	*Citrus* sp.	Thysanoptera	Thripidae	*Thrips australis*	Y	Y	Hand collection from paddock
-29.02	167.94	27/03/2014	Rubiaceae	*Coprosma baueri*	Thysanoptera	Thripidae	*Thrips australis*	Y	Y	Hand collection from leaves
-29.02	167.94	26/03/2014	Sapindaceae	*Dodonaea viscosa* subsp. *viscosa*	Thysanoptera	Thripidae	*Thrips australis*	Y	Y	Hand collection from leaves
-29.01	167.93	25/11/2014	Myrtaceae	*Eucalyptus* sp.	Thysanoptera	Thripidae	*Thrips australis*	Y	Y	Hand collection from flowers
-29.04	167.96	26/02/2014	Myrtaceae	*Leptospermum* sp.	Thysanoptera	Thripidae	*Thrips australis*	Y	Y	Beating
-29.04	167.94	21/11/2014	Lamiaceae	*Vitex trifolia*	Thysanoptera	Thripidae	*Thrips australis*	Y	Y	Hand collection
-29.03	167.92	23/11/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Thripidae	*Thrips australis*	Y	Y	Hand collection from terminal branches
-29.12	167.95	14/10/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Thripidae	*Thrips imaginis* Bagnall, 1926	Y	Y	Beating

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.12	167.95	14/10/2014	Rubiaceae	*Coprosma baueri*	Thysanoptera	Thripidae	*Thrips imaginis*	Y	Y	Beating
-29.04	167.99	24/12/2013	Rutaceae, Moraceae, unknown	*Murraya* sp., *Morus* sp.	Thysanoptera	Thripidae	*Thrips nigropilosus* Uzel, 1895	Y	Y	Hand collection
-29.00	167.93	20/02/2014; 24/12/2012	Asteraceae	*Lactuca sativa*	Thysanoptera	Thripidae	*Thrips nigropilosus*	Y	Y	Hand collection
-29.04	167.96	25/10/2013	Various		Thysanoptera	Thripidae	*Thrips novocaledonensis* (Bianchi, 1945)	Y	N	Hand collection
-29.04	167.96	21/12/2013	Various		Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from leaves of flowers and grasses
-29.06	167.94	22/09/2013	Various		Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Sweep net
-29.03	167.95	12/07/2013	Various		Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Observation on cultivated flowers
-29.04	167.99	25/11/2014	Arecaceae, Fabaceae, Araceae		Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from dead palm leaves, dead pea pods
-29.00	167.93	10/07/2013	Alliaceae	*Allium cepa* var. *aggregatum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.03	167.99	24/12/2012	Alliaceae	*Allium porrum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.99	29/11/2014	Fabaceae	*Arachis pintoi*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.03	167.92	23/11/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from terminal branches
-29.04	167.98	24/11/2014	Poaceae	*Avena sativa* L.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers (male specimens)
-29.01	167.94	22/12/2013	Euphorbiaceae	*Balogbia inophylla*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.01	167.94	24/12/2013	Euphorbiaceae, Oleaceae	*Balogbia inophylla*, *Jasminum* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.03	167.99	21/12/2013	Asteraceae	*Bidens pilosa*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.03	167.99	21/12/2013	Brassicaceae, Solanaceae	*Brassica oleracea* var. *italica*, *Capsicum annuum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.03	167.95	12/06/2013	Scrophulariaceae	*Buddleja* L.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating
-29.00	167.93	24/12/2012	Brassicaceae	*Capsella bursa-pastoris*?	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.03	167.99	24/12/2012	Solanaceae	*Capsicum annuum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers, leaves
-29.04	167.99	25/11/2014	Solanaceae	*Capsicum annuum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection (male specimens)
-29.03	167.92	21/05/2014	Caricaceae	*Carica papaya*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating
-29.00	167.93	12/06/2013	Caricaceae	*Carica papaya*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	9/07/2013	Caricaceae	*Carica papaya*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.04	167.99	14/06/2013	Caricaceae	*Carica papaya*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.03	167.99	22/03/2014	Poaceae	*Cenchrus purpureus*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.03	167.99	22/03/2014	Chenopodiaceae	*Chenopodium* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.00	167.93	24/09/2013	Rutaceae	*Citrus ×aurantium*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.01	167.93	26/09/2013	Rutaceae	*Citrus ×aurantium*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from rotting fruit. *Drosophila* observed
-29.04	167.99	25/09/2013	Rutaceae	*Citrus ×aurantium*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from leaves and fruit
-29.04	167.99	14/06/2013	Rutaceae	*Citrus ×aurantium*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.03	167.94	10/10/2014	Rutaceae	*Citrus* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.99	24/12/2013	Rutaceae	*Citrus* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from young leaves
-29.04	167.99	24/03/2014	Rutaceae, Poaceae	*Citrus* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from young citrus leaves
-29.03	167.99	21/12/2013; 23/12/2012	Rubiaceae	*Coffea* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.12	167.95	14/10/2014	Rubiaceae	*Coprosma baueri*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating
-29.01	167.92	16/10/2014	Asparagaceae	*Cordyline obtecta*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating
-29.01	167.94	21/10/2013	Asparagaceae	*Cordyline obtecta*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.04	167.98	9/10/2014	Asparagaceae	*Cordyline obtecta*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Sweep net and beating
-29.03	167.99	24/11/2014	Apiaceae	*Coriandrum sativum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers. (male specimens)
-29.04	167.99	27/11/2014	Amaryllidaceae	*Crinum* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers (male specimens)
-29.02	167.95	26/12/2012	Iridaceae	*Crocosmia* Planch.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.01	167.94	22/12/2012	Fabaceae	*Crotalaria* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.03	167.99	22/10/2013	Cucurbitaceae	*Cucurbita pepo*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.01	167.94	24/05/2014	Cyatheaceae	*Cyathea brownii*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating
-29.03	167.92	21/05/2014	Apiaceae	*Daucus carota*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating
-29.03	167.99	24/12/2012	Apiaceae	*Daucus carota*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers, leaves
-29.04	167.96	4/12/2014	Caryophyllaceae	*Dianthus caryophyllus* L.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.96	25/10/2013	Caryophyllaceae	*Dianthus caryophyllus*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.01	167.94	21/10/2013	Iridaceae	*Gladiolus ×hortulanus*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.02	167.95	23/11/2014	Iridaceae	*Gladiolus* L.?	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from leaves
-29.04	167.96	10/10/2014	Proteaceae	*Grevillea* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating
-29.04	167.96	10/10/2014	Proteaceae	*Grevillea* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating
-29.03	167.95	26/12/2012	Hemerocallidaceae	*Hemerocallis* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.02	167.95	22/11/2014	Hemerocallidaceae	*Hemerocallis* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from leaves
-29.02	167.93	26/09/2013	Malvaceae	*Hibiscus insularis*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.99	23/11/2014	Malvaceae	*Hibiscus insularis*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from dead wood, dead seed heads
-29.04	167.94	25/11/2014	Malvaceae	*Hibiscus* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.94	10/07/2013	Malvaceae	*Hibiscus* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.94	21/12/2012	Malvaceae	*Hibiscus* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.01	167.95	22/11/2014	Malvaceae	*Hibiscus* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from dead twigs and leaves
-29.05	167.97	27/11/2014	Malvaceae	*Hibiscus* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.04	167.97	27/11/2014	Malvaceae	*Hibiscus* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.03	167.95	12/06/2013	Malvaceae	*Hibiscus* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.99	29/11/2014	Malvaceae	*Hibiscus* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flower petal
-29.04	167.99	29/11/2014	Malvaceae	*Hibiscus* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flower petals
-29.02	167.96	25/11/2014	Asteraceae	*Hieracium* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.03	167.95	22/11/2014	Pittosporaceae	*Hymenosporum flavum* (Hook.) F.Muell	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from male flowers
-29.04	167.96	28/12/2012	Pittosporaceae	*Hymenosporum flavum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.03	167.94	28/11/2014	Convolvulaceae	*Ipomoea cairica*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.05	167.92	23/11/2014	Convolvulaceae, Solanaceae	*Ipomoea cairica, Lycium ferocissimum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.02	167.96	26/11/2014	Bignoniaceae	*Jacaranda* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/[a])	Mainland Australia (Y/N/[a])	Collection method
-29.03	167.95	25/10/2013	Bignoniaceae	*Jacaranda* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.04	167.99	23/11/2014	Bignoniaceae	*Jacaranda* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.01	167.95	26/12/2012	Oleaceae	*Jasminum* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from leaves
-29.03	167.99	25/09/2013	Asteraceae	*Lactuca sativa*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from hydroponics
-29.03	167.95	22/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.02	167.94	22/12/2013	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.02	167.95	22/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.99	27/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.01	167.93	16/10/2014	Verbenaceae	*Lantana camara*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.96	25/10/2013	Verbenaceae	*Lantana camara*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.94	21/12/2012	Verbenaceae	*Lantana* L.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.03	167.99	22/03/2014	Verbenaceae	*Lantana* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.02	167.95	21/12/2012	Asteraceae	*Leucanthemum vulgare*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.04	167.99	29/11/2014	Liliaceae	*Lilium formosanum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.03	167.95	22/11/2014	Caprifoliaceae	*Lonicera japonica* Thunb.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.01	167.93	13/06/2013	Proteaceae	*Macadamia integrifolia*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating
-29.03	167.94	10/10/2014	Proteaceae	*Macadamia integrifolia*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Sweep net
-29.02	167.96	23/10/2013	Anacardiaceae	*Mangifera indica*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.05	167.93	29/11/2014	Fabaceae	*Medicago sativa*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.04	167.99	23/11/2014	Fabaceae	*Medicago sativa*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.03	167.99	22/12/2012	Fabaceae	*Medicago* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.03	167.99	22/10/2013	Meliaceae	*Melia azedarach*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from leaves
-29.03	167.99	23/03/2014	Meliaceae	*Melia azedarach*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers, leaves
-29.02	167.96	27/12/2012	Myrtaceae, Convolvulaceae	*Metrosideros* sp., *Ipomoea* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.01	167.94	22/03/2014	Polygonaceae	*Muehlenbeckia australis*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection (male specimens)

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.99	24/12/2013	Rutaceae, Moraceae, unknown	*Murraya* sp., *Morus* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.00	167.93	20/02/2014	Musaceae	*Musa* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Sweep net
-29.01	167.94	22/03/2014	Scrophulariaceae	*Myoporum obscurum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.01	167.94	26/03/2014; 22/03/2014	Scrophulariaceae	*Myoporum obscurum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.02	167.95	10/07/2013	Primulaceae	*Myrsine ralstoniae*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.03	167.98	22/05/2014	Solanaceae	*Nicandra physaloides*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating
-29.00	167.93	10/07/2013; 23/10/2013; 24/12/2012	Lamiaceae	*Ocimum basilicum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.03	167.95	22/11/2014	Oleaceae	*Olea europaea* subsp. *cuspidata*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.03	167.95	10/07/2013	Oleaceae	*Olea europaea* subsp. *cuspidata*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.01	167.92	26/11/2014	Oleaceae	*Olea europaea* subsp. *cuspidata*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.00	167.94	24/03/2014	Oleaceae	*Olea europaea* subsp. *cuspidata*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from grasses, olive litter
-29.01	167.93	20/05/2014	Poaceae	*Paspalum* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Sweep net in eucalypt forest
-29.03	167.92	22/05/2014	Passifloraceae	*Passiflora edulis* f. *flavicarpa*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating
-29.02	167.95	22/11/2014	Rubiaceae	*Pentas lanceolata*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.06	167.94	22/09/2013	Lauraceae	*Persea americana*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.00	167.93	20/02/2014	Lauraceae	*Persea americana*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.94	21/12/2012	Apiaceae	*Petroselinum crispum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.03	167.93	26/09/2013	Apiaceae	*Petroselinum crispum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.99	24/12/2013	Apiaceae	*Petroselinum crispum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.99	23/11/2014	Apiaceae	*Petroselinum crispum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.03	167.99	23/12/2012	Fabaceae	*Phaseolus* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.03	167.99	21/12/2013	Fabaceae, Apiaceae	*Phaseolus* sp., *Apium graveolens*, *Daucus carota*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.98	24/11/2014	Solanaceae	*Physalis peruviana*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection (male specimens)
-29.03	167.99	22/10/2013	Solanaceae	*Physalis peruviana*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.03	167.99	9/07/2013	Solanaceae, Asteraceae, various	*Physalis* sp., *Bidens pilosa*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.03	167.99	25/09/2013	Fabaceae	*Pisum sativum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from hydroponics
-29.04	167.96	26/03/2014	Fabaceae, Alliaceae, various	*Pisum sativum*, *Allium cepa* var. *aggregatum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.03	167.95	22/11/2014; 22/12/2012	Apocynaceae	*Plumeria rubra*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.04	167.99	27/11/2014	Apocynaceae	*Plumeria rubra*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.05	167.94	22/09/2013	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.96	22/12/2013	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from leaves
-29.01	167.94	23/12/2013	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from leaves
-29.02	167.96	25/12/2013	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.99	25/11/2014	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from leaves
-29.01	167.94	22/12/2012	Myrtaceae	*Psidium cattleyanum* var. *cattleyanum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.96	4/12/2014	Rosaceae	*Rosa* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.01	167.95	23/09/2013	Rosaceae	*Rosa* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.03	167.95	12/06/2013	Lamiaceae	*Rosmarinus officinalis*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating
-29.02	167.96	9/07/2013	Poaceae	*Saccharum officinarum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from dead sugar cane leaves
-29.03	167.92	21/05/2014	Solanaceae	*Solanum lycopersicum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating
-29.03	167.99	22/12/2012	Solanaceae	*Solanum lycopersicum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers, leaves
-29.00	167.93	24/12/2012	Solanaceae	*Solanum mauritianum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.01	167.93	21/05/2014	Solanaceae	*Solanum mauritianum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating in eucalypt forest
-29.04	167.99	26/05/2014	Solanaceae	*Solanum mauritianum*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating
-29.03	167.99	21/12/2013	Solanaceae	*Solanum melongena*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.94	25/11/2014	Moraceae	*Streblus pendulinus*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from leaves
-29.03	167.94	23/05/2014	Strelitziaceae	*Strelitzia reginae*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating
-29.04	167.94	25/11/2014	Fabaceae	*Trifolium* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.02	167.93	25/05/2014	Fabaceae	*Trifolium* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating
-29.03	167.99	22/10/2013	Poaceae, Fabaceae	*Trifolium* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.99	23/11/2014	Fabaceae	*Trifolium* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.05	167.93	23/12/2013	Unknown	Unknown	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.00	167.94	24/03/2014	Poaceae	Unknown	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.01	167.94	23/12/2012	Unknown	Unknown	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from dead branch
-29.06	167.94	22/09/2013	Unknown	Unknown	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Sweep net
-29.03	167.99	22/12/2012	Poaceae	Unknown	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.99	23/11/2014	Apiaceae	Unknown	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from cultivated flowers
-29.04	167.99	24/12/2013	Unknown	Unknown	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from woody pot plant
-29.01	167.94	11/07/2013	Plantaginaceae	*Veronica* L.?	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.04	167.96	25/10/2013	Vitaceae	*Vitis vinifera*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from flowers
-29.04	167.99	25/09/2013	Vitaceae	*Vitis vinifera*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from leaves (no thrips damage)
-29.05	167.98	24/02/2014	Asparagaceae	*Yucca aloifolia*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Beating
-29.00	167.93	24/03/2014	Poaceae	*Zea mays*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from male plants
-29.00	167.93	24/12/2012	Poaceae	*Zea mays*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.03	167.99	24/11/2014; 22/12/2012	Poaceae	*Zea mays*	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from corn tassels, leaves
-29.03	167.99	22/10/2013	Poaceae, Fabaceae	*Zea mays*, *Trifolium* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from male corn flowers
-29.00	167.93	27/02/2014	Zingiberaceae	*Zingiber* sp.	Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection
-29.00	167.93	26/11/2014	Various		Thysanoptera	Thripidae	*Thrips novocaledonensis*	Y	N	Hand collection from vegetables
-29.01	167.94	22/12/2012	Iridaceae	*Gladiolus* ×*hortulanus*	Thysanoptera	Thripidae	*Thrips simplex* (Morison, 1930)	Y	Y	Hand collection from flowers
-29.04	167.99	25/11/2014	Arecaceae, Fabaceae, Araceae		Thysanoptera	Thripidae	*Thrips tabaci* Lindemann, 1888	Y	Y	Hand collection from dead palm leaves, dead pea pods

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.93	23/10/2013	Alliaceae	*Allium cepa* var. *aggregatum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.97	25/03/2014	Alliaceae	*Allium cepa* var. *aggregatum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.99	25/09/2013	Alliaceae	*Allium cepa* var. *aggregatum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from hydroponics
-29.03	167.99	22/03/2014; 22/10/2013	Alliaceae	*Allium cepa* var. *aggregatum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.99	22/03/2014	Alliaceae, Chenopodiaceae, Solanaceae, Lamiaceae	*Allium cepa* var. *aggregatum*, *Chenopodium* sp., *Ocimum basilicum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.00	167.93	10/07/2013	Alliaceae	*Allium cepa* var. *aggregatum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.00	167.93	24/09/2013	Alliaceae	*Allium porrum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.99	24/12/2012	Alliaceae	*Allium porrum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.99	25/11/2014	Alliaceae, Chenopodiaceae, Apiaceae	*Allium sativum* L., *Beta vulgaris*, *Daucus carota*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.00	167.93	24/12/2012	Apiaceae	*Apium graveolens*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from seedlings
-29.03	167.94	28/11/2014	Fabaceae	*Arachis pintoi*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.04	167.99	23/11/2014	Fabaceae	*Arachis pintoi*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.92	23/11/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from terminal branches
-29.02	167.95	21/03/2014	Araucariaceae	*Araucaria heterophylla*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from terminal leaves
-29.03	167.92	23/11/2014	Araucariaceae, Asparagaceae	*Araucaria heterophylla*, *Cordiline* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.97	26/11/2014	Asteraceae	*Argyranthemum* Webb ex Sch.Bip.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.97	26/11/2014	Asparagaceae	*Asparagus officinalis*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.96	25/10/2013	Asparagaceae	*Asparagus* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.02	167.96	27/12/2012	Asparagaceae	*Asparagus* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from leaves
-29.04	167.98	24/11/2014	Poaceae	*Avena sativa*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.01	167.94	24/12/2013	Euphorbiaceae, Oleaceae	*Baloghia inophylla*, *Jasminum* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.02	167.95	21/12/2013	Asteraceae	*Bidens pilosa*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.02	167.95	22/11/2014	Asteraceae	*Bidens pilosa*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.04	167.98	24/11/2014	Asteraceae	*Bidens pilosa*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.03	167.99	22/10/2013	Asteraceae	*Bidens pilosa*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.04	167.99	25/11/2014	Asteraceae	*Bidens pilosa*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.99	22/10/2013	Brassicaceae	*Brassica oleracea* var. *capitata*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.99	24/12/2012	Brassicaceae	*Brassica oleracea* var. *capitata*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from seedling
-29.03	167.98	21/05/2014	Brassicaceae	*Brassica oleracea* var. *italica*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Beating
-29.03	167.99	23/12/2012	Brassicaceae	*Brassica oleracea* var. *italica*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection, damaged leaves, larvae present
-29.03	167.99	24/11/2014	Brassicaceae, Alliaceae	*Brassica oleracea* var. *italica*, *Allium cepa*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.99	21/12/2013	Brassicaceae, Solanaceae	*Brassica oleracea* var. *italica*, *Brassica oleracea* var. *botrytis*, *Capsicum annuum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.05	167.93	23/12/2013	Brassicaceae	*Brassica rapa*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.00	167.93	24/12/2012	Brassicaceae	*Capsella bursa-pastoris* (L.) Medik.?	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.00	167.93	27/11/2014; 24/09/2013	Solanaceae	*Capsicum annuum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.96	25/10/2013	Solanaceae	*Capsicum annuum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.99	24/12/2012	Solanaceae	*Capsicum annuum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers, leaves
-29.04	167.99	25/11/2014	Solanaceae	*Capsicum annuum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.05	167.93	23/12/2013	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.92	23/11/2014	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.02	167.95	23/12/2012	Poaceae	*Cenchrus clandestinus*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.99	22/03/2014	Poaceae	*Cenchrus purpureus*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.98	24/11/2014	Chenopodiaceae	*Chenopodium* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.99	22/12/2012	Chenopodiaceae	*Chenopodium* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.99	22/03/2014	Chenopodiaceae	*Chenopodium* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.04	167.99	24/12/2013	Rutaceae	*Citrus* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from young leaves
-29.01	167.94	25/11/2014	Commelinaceae	*Commelina cyanea*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from leaves
-29.04	167.96	21/12/2013	Commelinaceae	*Commelina* L.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.02	167.96	26/09/2013	Apiaceae	*Coriandrum sativum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.04	167.99	24/11/2014	Apiaceae	*Coriandrum sativum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.02	167.96	23/10/2013	Euphorbiaceae	*Croton capitatus* Michx.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.03	167.99	9/07/2013	Cucurbitaceae	*Cucumis sativus*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from greenhouse
-29.03	167.99	9/07/2013	Cucurbitaceae, various	*Cucumis sativus*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from green house
-29.03	167.99	22/05/2014	Cucurbitaceae	*Cucumis sativus*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Beating
-29.00	167.93	24/09/2013	Cucurbitaceae	*Cucurbita pepo*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection, aphids also present
-29.03	167.99	22/10/2013	Cucurbitaceae	*Cucurbita pepo*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.00	167.93	23/03/2014	Cucurbitaceae, Solanaceae, Alliaceae, Chenopodiaceae, Poaceae	*Cucurbita* sp., *Solanum lycopersicum*, *Allium porrum*, *Chenopodium* sp., *Digitaria* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.00	167.93	10/07/2013; 23/10/2013	Apiaceae	*Daucus carota*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.00	167.93	24/09/2013	Apiaceae	*Daucus carota*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Sweep net
-29.03	167.99	22/03/2014	Apiaceae	*Daucus carota*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.99	10/07/2013	Apiaceae	*Daucus carota*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.99	24/12/2012; 24/03/2014	Apiaceae	*Daucus carota*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from leaves, flowers (larvae present)
-29.03	167.99	24/11/2014	Apiaceae, Alliaceae, Fabaceae	*Daucus carota*, *Allium cepa* var. *aggregatum*, *Phaseolus vulgaris*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.04	167.96	4/12/2014	Caryophyllaceae	*Dianthus caryophyllus*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.96	25/10/2013	Caryophyllaceae	*Dianthus caryophyllus*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.02	167.96	26/09/2013	Brassicaceae	*Eruca sativa*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection, leaf mining damage
-29.04	167.94	21/12/2012	Euphorbiaceae	*Euphorbia* L.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from leaves
-29.04	167.96	25/10/2013	Euphorbiaceae	*Euphorbia* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.96	22/12/2013	Apiaceae	*Foeniculum vulgare*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.02	167.96	25/03/2014	Apiaceae, Rosaceae	*Foeniculum vulgare*, *Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from leaves
-29.03	167.99	22/03/2014	Asteraceae	*Gdinsoga parviflora*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.01	167.94	22/12/2012	Iridaceae	*Gladiolus xhortulanus*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.05	167.97	27/11/2014	Malvaceae	*Hibiscus* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.02	167.96	25/11/2014	Asteraceae	*Hieracium* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.03	167.94	28/11/2014	Convolvulaceae	*Ipomoea cairica*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.05	167.92	23/11/2014	Convolvulaceae, Solanaceae	*Ipomoea cairica*, *Lycium ferocissimum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.02	167.96	26/11/2014	Bignoniaceae	*Jacaranda* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.04	167.99	23/11/2014	Bignoniaceae	*Jacaranda* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.00	167.93	24/12/2012	Asteraceae	*Lactuca sativa*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.00	167.93	23/10/2013	Asteraceae, Chenopodiaceae, Alliaceae, Apiaceae, Lamiaceae	*Lactuca sativa*, *Beta vulgaris*, *Allium porrum*, *Allium cepa* var. *aggregatum*, *Coriandrum sativum*, *Ocimum basilicum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	22/10/2013	Asteraceae, Chenopodiaceae, Apiaceae, Solanaceae, Fabaceae, Cucurbutiaceae	*Lactuca sativa*, *Spinacia oleracea*, *Apium graveolens*, *Solanum lycopersicum*, *Phaseolus* sp., *Cucurbita pepo*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.02	167.95	22/11/2014	Malvaceae	*Lagunaria patersonia*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.96	25/10/2013	Verbenaceae	*Lantana camara*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.02	167.95	21/12/2012	Asteraceae	*Leucanthemum vulgare*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.12	167.95	15/10/2014	Fabaceae	*Lupinus* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Beating
-29.02	167.96	23/10/2013	Anacardiaceae	*Mangifera indica*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.05	167.93	13/06/2013	Fabaceae	*Medicago sativa*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Sweep net
-29.05	167.93	12/07/2013	Fabaceae	*Medicago sativa*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.99	23/11/2014	Fabaceae	*Medicago sativa*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.05	167.93	23/12/2013	Fabaceae	*Medicago* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.99	22/12/2012	Fabaceae	*Medicago* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.03	167.99	23/03/2014	Meliaceae	*Melia azedarach*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers, leaves
-29.04	167.99	24/12/2013	Rutaceae, Moraceae, unknown	*Murraya* sp., *Morus* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.96	10/10/2014	Musaceae	*Musa* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Beating
-29.01	167.94	24/11/2014	Scrophulariaceae	*Myoporum obscurum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.02	167.95	26/12/2013	Passifloraceae	*Passiflora* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from leaves
-29.02	167.95	22/11/2014	Rubiaceae	*Pentas lanceolata*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.00	167.93	22/12/2013	Apiaceae	*Petroselinum crispum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.93	26/09/2013	Apiaceae	*Petroselinum crispum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.99	23/11/2014; 24/12/2013	Apiaceae	*Petroselinum crispum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.99	23/12/2012	Fabaceae	*Phaseolus* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	21/12/2013	Fabaceae, Apiaceae	*Phaseolus* sp., *Apium graveolens*, *Daucus carota*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.98	24/11/2014	Solanaceae	*Physalis peruviana*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.99	22/10/2013	Solanaceae	*Physalis peruviana*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.99	25/09/2013	Fabaceae	*Pisum sativum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from hydroponics
-29.04	167.96	26/03/2014	Fabaceae, Alliaceae, various	*Pisum sativum*, *Allium cepa* var. *aggregatum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.96	22/12/2013	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from leaves
-29.01	167.94	23/12/2013	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from leaves
-29.02	167.96	25/12/2013	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.02	167.95	22/11/2014	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from leaves
-29.02	167.95	25/12/2013	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from young leaves
-29.04	167.99	25/11/2014	Rosaceae	*Prunus persica* var. *persica*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from leaves
-29.03	167.92	21/05/2014	Solanaceae	*Solanum lycopersicum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Beating
-29.00	167.93	27/11/2014	Solanaceae	*Solanum lycopersicum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.98	24/11/2014	Solanaceae	*Solanum lycopersicum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers, leaves
-29.03	167.99	22/12/2012	Solanaceae	*Solanum lycopersicum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers, leaves
-29.04	167.99	25/11/2014	Solanaceae	*Solanum lycopersicum*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.02	167.96	26/09/2013	Solanaceae	*Solanum melongena*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.05	167.92	28/11/2014	Asteraceae	*Tagetes* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.03	167.93	27/11/2014	Asteraceae	*Taraxacum* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.94	25/11/2014	Fabaceae	*Trifolium* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.03	167.99	22/10/2013	Poaceae, Fabaceae	*Trifolium* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.99	23/11/2014	Fabaceae	*Trifolium* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from flowers
-29.01	167.92	25/11/2014	Asteraceae	Unknown	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.00	167.93	24/12/2012	Brassicaceae	Unknown	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.00	167.94	25/11/2014	Poaceae	Unknown	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.02	167.97	22/12/2012	Unknown	Unknown	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.92	23/11/2014	Poaceae, Cyperaceae	Unknown	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.96	21/12/2013	Various	Unknown	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from leaves of flowers and grasses
-29.02	167.96	28/11/2014	Unknown	Unknown	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from leaf litter
-29.023	167.949	21/12/2012	Poaceae	Unknown	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from base of grass
-29.03	167.99	22/12/2012	Poaceae	Unknown	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.99	23/11/2014	Apiaceae	Unknown	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection, from cultivated flowers
-29.00	167.94	25/11/2014	Fabaceae	*Vicia hirsuta* (L.) Gray	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.04	167.94	21/11/2014	Lamiaceae	*Vitex trifolia*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.00	167.93	24/12/2012	Poaceae	*Zea mays*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.03	167.99	24/11/2014	Poaceae	*Zea mays*	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from corn tassels, leaves
-29.03	167.99	22/10/2013	Poaceae, Fabaceae	*Zea mays*, *Trifolium* sp.	Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection from male corn flowers
-29.00	167.93	26/11/2014	Various		Thysanoptera	Thripidae	*Thrips tabaci*	Y	Y	Hand collection
-29.01	167.92	24/06/2014	NA	NA	Diptera	Dolichopodidae	*Thrypticus australis* Bickel, 1986	N	Y	LuciLure trap
-29.03	167.93	10/06/2014	NA	NA	Diptera	Dolichopodidae	*Thrypticus australis*	N	Y	Bezzilure trap
-29.03	167.99	24/12/2012	Cucurbitaceae	*Cucurbita pepo*	Diptera	Dolichopodidae	*Thrypticus australis*	N	Y	Yellow pan on bare soil beside cucurbits
-29.05	167.95	12/10/2014	NA	NA	Diptera	Dolichopodidae	*Thrypticus* Gerstaecker, 1864	?	?	Light trap
-29.00	167.93	24/09/2013	Arecaceae	*Howea belmoreana*, *Howea forsteriana*	Sarcoptiformes	Acaridae	*Thyreophagus gallegoi* Portus & Gomez, 1980	Y	N	Hand collection
-29.05	167.94	22/09/2013	Brassicaceae	*Brassica oleracea* var. *capitata*	Lepidoptera	Noctuidae	*Thysanoplusia* Ichinose, 1973	Y	?	Hand collection
-29.03	167.98	25/09/2013	Apiaceae	*Daucus carota*	Lepidoptera	Noctuidae	*Thysanoplusia orichalcea* (Fabricius, 1775)	Y	Y	Sweep net (larva)
-29.03	167.92	21/05/2014	Apiaceae	*Daucus carota*	Lepidoptera	Noctuidae	*Thysanoplusia orichalcea*	Y	Y	Beating
-29.03	167.96	23/02/2014	NA	NA	Lepidoptera	Noctuidae	*Tiracola plagiata* (Walker, 1857)	N	Y	Light trap

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.95	23/05/2014	NA	NA	Lepidoptera	Noctuidae	*Tiracola plagiata*	N	Y	Light trap
-29.01	167.92	10/06/2014	NA	NA	Diptera	Pipunculidae	*Tomosvaryella* Aczél, 1939	Y	?	LuciLure trap
-29.02	167.96	13/10/2014	Araucariaceae	*Araucaria heterophylla*	Stylommatophora	Achatinellidae	*Tornatellinops jacksonensis* (Cox, 1864)	N	Y	Hand collection from tree felled 10 months prior
-29.05	167.92	27/09/2013	Araucariaceae	*Araucaria heterophylla*	Stylommatophora	Achatinellidae	*Tornatellinops jacksonensis*	N	Y	Hand collection from felled tree
-29.06	167.96	27/09/2013	Araucariaceae	*Araucaria heterophylla*	Stylommatophora	Achatinellidae	*Tornatellinops jacksonensis*	N	Y	Hand collection
-29.04	167.99	25/09/2013	Caricaceae	*Carica papaya*	Stylommatophora	Achatinellidae	*Tornatellinops jacksonensis*	N	Y	Hand collection
-29.01	167.92	16/10/2014	Asparagaceae	*Cordyline obtecta*	Stylommatophora	Achatinellidae	*Tornatellinops jacksonensis*	N	Y	Beating
-29.01	167.95	25/02/2014	Asparagaceae	*Cordyline* sp.	Stylommatophora	Achatinellidae	*Tornatellinops jacksonensis*	N	Y	Hand collection
-29.03	167.98	25/09/2013	Convolvulaceae	*Ipomoea batatas*	Stylommatophora	Achatinellidae	*Tornatellinops jacksonensis*	N	Y	Hand collection
-29.12	167.96	15/10/2014	Convolvulaceae	*Ipomoea cairica*	Stylommatophora	Achatinellidae	*Tornatellinops jacksonensis*	N	Y	Beating
-29.12	167.95	14/10/2014	Malvaceae	*Lagunaria patersonia*	Stylommatophora	Achatinellidae	*Tornatellinops jacksonensis*	N	Y	Hand collection and beating
-29.04	167.94	23/09/2013	Araliaceae	*Meryta angustifolia*	Stylommatophora	Achatinellidae	*Tornatellinops jacksonensis*	N	Y	Hand collection
-29.05	167.93	20/06/2013	Unknown	Unknown	Stylommatophora	Achatinellidae	*Tornatellinops jacksonensis*	N	Y	
-29.05	167.92	18/07/2013	Araucariaceae	*Araucaria heterophylla*	Stylommatophora	Achatinellidae	*Tornatellinops jacksonensis*	N	Y	Hand collection
-29.04	167.99	8/10/2014	Rutaceae	*Citrus ×aurantiifolia*	Hemiptera	Aphididae	*Toxoptera aurantii* (Boyer de Fonscolombe, 1841)	Y	Y	Hand collection and sweep net
-29.00	167.93	12/06/2013	Rutaceae	*Citrus ×aurantium*	Hemiptera	Aphididae	*Toxoptera aurantii*	Y	Y	Hand collection
-29.04	167.99	14/06/2013	Rutaceae	*Citrus ×aurantium*	Hemiptera	Aphididae	*Toxoptera aurantii*	Y	Y	Hand collection
-29.06	167.94	22/09/2013	Rutaceae	*Citrus reticulata*	Hemiptera	Aphididae	*Toxoptera aurantii*	Y	Y	Hand collection
-29.01	167.93	13/06/2013	Rutaceae	*Citrus* sp.	Hemiptera	Aphididae	*Toxoptera aurantii*	Y	Y	Hand collection
-29.03	167.94	10/10/2014	Theaceae	*Camellia japonica* L.	Hemiptera	Aphididae	*Toxoptera aurantii*	Y	Y	Hand collection
-29.03	167.93	26/09/2013	Rutaceae	*Citrus ×aurantium*	Hemiptera	Aphididae	*Toxoptera*? sp.	Y	?	Hand collection
-29.01	167.93	26/09/2013	Rutaceae	*Citrus* sp.	Hemiptera	Aphididae	*Toxoptera*? sp.	Y	?	Hand collection
-29.01	167.94	11/06/2013	Araucariaceae	*Araucaria heterophylla*	Lepidoptera	Tortricidae	*Tracholena hedraea* Common, 1982	N	N	Hand collection
-29.04	167.94	12/06/2013	Araucariaceae	*Araucaria heterophylla*	Lepidoptera	Tortricidae	*Tracholena hedraea*	N	N	Hand collection
-29.03	167.99	22/05/2014	Cucurbitaceae	*Cucumis sativus*	Hemiptera	Aleyrodidae	*Trialeurodes vaporariorum* (Westwood, 1856)	Y	Y	Beating
-29.06	167.96	24/05/2014	Euphorbiaceae	*Euphorbia peplus* L.	Hemiptera	Aleyrodidae	*Trialeurodes vaporariorum*	Y	Y	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.03	167.99	14/06/2013	Fabaceae	*Phaseolus vulgaris*	Hemiptera	Aleyrodidae	*Trialeurodes vaporariorum*	Y	Y	Hand collection
-29.03	167.93	12/06/2013	Solanaceae	*Solanum lycopersicum*	Hemiptera	Aleyrodidae	*Trialeurodes vaporariorum*	Y	Y	Hand collection
-29.03	167.99	14/06/2013; 25/09/2013	Solanaceae	*Solanum lycopersicum*	Hemiptera	Aleyrodidae	*Trialeurodes vaporariorum*	Y	Y	Hand collection
-29.03	167.93	12/06/2013	Cucurbitaceae	*Cucumis sativus*	Hemiptera	Aleyrodidae	*Trialeurodes vaporariorum*	Y	Y	Hand collection
-29.04	167.99	8/10/2014	Poaceae	*Zea mays*	Diptera	Tachinidae	*Trichopoda giacomelli* (Blanchard, 1966)	Y	Y	Beating
-29.05	167.95	20/02/2014	NA	NA	Orthoptera	Trigonidiidae	*Trigonidium vitaticollis* (Stål, 1861)	N	Y	Light trap
-29.01	167.93	27/02/2014	NA	NA	Lepidoptera	Noctuidae	*Trigonodes hyppasia* (Cramer, 1779)	N	Y	Light trap in eucalypt forest
-29.03	167.97	22/05/2014	NA	NA	Lepidoptera	Noctuidae	*Trigonodes hyppasia*	N	Y	Light trap
-29.04	167.94	28/02/2014	NA	NA	Lepidoptera	Noctuidae	*Trigonodes hyppasia*	N	Y	Light trap
-29.05	167.95	20/02/2014	NA	NA	Lepidoptera	Noctuidae	*Trigonodes hyppasia*	N	Y	Light trap
-29.06	167.94	26/11/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Triophtydeidae	*Triophtydeus* Thor, 1932	Y	?	Ethanol wash
-29.00	167.93	12/06/2013	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Triophtydeidae	*Triophtydeus* sp.	Y	?	Ethanol wash
-29.00	167.93	24/09/2013	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Triophtydeidae	*Triophtydeus* sp.	Y	?	Hand collection
-29.03	167.93	26/09/2013	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Triophtydeidae	*Triophtydeus* sp.	Y	?	Hand collection
-29.05	167.92	27/09/2013	Rutaceae	*Citrus* sp.	Trombidiformes	Triophtydeidae	*Triophtydeus* sp.	Y	?	Hand collection
-29.01	167.93	26/09/2013	Rutaceae	*Citrus* sp.	Trombidiformes	Triophtydeidae	*Triophtydeus* sp.	Y	?	Hand collection
-29.00	167.93	24/09/2013	Arecaceae	*Howea belmoreana*, *Howea forsteriana*	Trombidiformes	Triophtydeidae	*Triophtydeus* sp.	Y	?	Hand collection
-29.05	167.92	26/11/2014	Malvaceae	*Lagunaria patersonia*	Trombidiformes	Triophtydeidae	*Triophtydeus* sp.	Y	?	Ethanol wash
-29.04	167.9	25/09/2013	Malvaceae	*Lagunaria patersonia*	Trombidiformes	Triophtydeidae	*Triophtydeus* sp.	Y	?	Hand collection
-29.04	167.98	27/11/2014	Lauraceae	*Persea americana*	Trombidiformes	Triophtydeidae	*Triophtydeus* sp.	Y	?	Ethanol wash
-29.03	167.93	27/11/2014	Rosaceae	*Prunus persica* var. *persica*	Trombidiformes	Triophtydeidae	*Triophtydeus* sp.	Y	?	Ethanol wash
-29.04	167.95	26/11/2014	Rosaceae	*Prunus persica* var. *persica*	Trombidiformes	Triophtydeidae	*Triophtydeus* sp.	Y	?	Ethanol wash
-29.03	167.96	25/11/2014	Unknown	Unknown	Trombidiformes	Triophtydeidae	*Triophtydeus* sp.	Y	?	Ethanol wash
-29.04	167.95	24/11/2014	Unknown	Unknown	Trombidiformes	Triophtydeidae	*Triophtydeus* sp.	Y	?	Ethanol wash
-29.04	167.99	27/11/2014	Annonaceae	*Annona muricata*	Trombidiformes	Triophtydeidae	*Triophtydeus* sp.	Y	?	Ethanol wash
-29.02	167.93	28/11/2014	NA		Hemiptera	Triozidae	*Trioza* Förster, 1848	Y	?	Trapping in nursery

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.95	25/02/2014	Pittosporaceae	*Pittosporum* sp.	Hemiptera	Triozidae	*Trioza vitreoradiata* (Maskell, 1879)	Y	N	Hand collection
-29.04	167.98	9/10/2014	Anacardiaceae	*Mangifera indica*	Coleoptera	Dermestidae	*Trogoderma* Latreille *in* Dejean, 1821	Y	?	Sweep net and beating
-29.06	167.94	22/09/2013	Lauraceae	*Persea americana*	Coleoptera	Dermestidae	*Trogoderma* sp.	Y	?	Hand collection
-29.03	167.94	10/10/2014	Unknown	Unknown	Coleoptera	Dermestidae	*Trogoderma* sp.	Y	?	Hand collection from hardwood logs
-29.00	167.93	24/11/2014	Araucariaceae	*Araucaria heterophylla*	Trombidiformes	Tydeidae	*Tydeus* Koch, 1836	Y	?	Ethanol wash
-29.00	167.93	24/09/2013	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Tydeidae	*Tydeus* sp.	Y	?	Hand collection
-29.04	167.99	14/06/2013	Rutaceae	*Citrus ×aurantium*	Trombidiformes	Tydeidae	*Tydeus* sp.	Y	?	Hand collection
?-29.04	167.99	27/11/2014	Rosaceae	*Pyrus communis*	Trombidiformes	Tydeidae	*Tydeus* sp.	Y	?	Ethanol wash
-29.03	167.96	25/11/2014	Unknown	Unknown	Trombidiformes	Tydeidae	*Tydeus* sp.	Y	?	Ethanol wash
-29.04	167.99	27/11/2014	Rosaceae	*Prunus persica* var. *nucipersica*	Trombidiformes	Tydeidae	*Tydeus californicus* (Banks, 1904)	Y	Y	Ethanol wash
-29.03	167.95	25/09/2013	Fabaceae	*Neonotonia wightii* (Wight & Arn.) J.A.Lackey	Trombidiformes	Tydeidae	*Tydeus californicus*	Y	Y	Hand collection
-29.03	167.97	18/02/2014	NA	NA	Coleoptera	Mycetophagidae	*Typhaea stercorea* (Linnaeus, 1758)	Y	Y	Hand collection from timber billets
-29.03	167.95	25/02/2014	NA	NA	Coleoptera	Mycetophagidae	*Typhaea stercorea*	Y	Y	Hand collection
-29.02	167.97	24/02/2014	NA	NA	Coleoptera	Mycetophagidae	*Typhaea stercorea*	Y	Y	*Culicoides* trap
-29.04	167.99	24/11/2014	Rutaceae	*Citrus ×aurantium*	Sarcoptiformes	Acaridae	*Tyrophagus* Oudemans, 1924	Y	?	Ethanol wash
-29.06	167.97	25/05/2014	Malvaceae	*Hibiscus rosa-sinensis*	Sarcoptiformes	Acaridae	*Tyrophagus* sp.	Y	?	Beating
-29.03	167.99	24/12/2012	Solanaceae	*Capsicum annuum*	Sarcoptiformes	Acaridae	*Tyrophagus curvipenis* Fain & Fauvel, 1993	Y	Y	Beating flowers, leaves
-29.03	167.94	27/11/2014	Bromeliaceae	*Ananas comosus*	Sarcoptiformes	Acaridae	*Tyrophagus curvipenis*	Y	Y	Ethanol wash
-29.01	167.93	21/05/2014	Solanaceae	*Solanum mauritianum*	Sarcoptiformes	Acaridae	*Tyrophagus putrescentiae* (Schrank, 1781)	Y	Y	Beating in eucalypt forest
-29.05	167.95	24/05/2014	NA	NA	Sarcoptiformes	Acaridae	*Tyrophagus putrescentiae*	Y	Y	*Culicoides* trap Set 21.5.2014, collected 24.5.2014
-29.05	167.98	24/02/2014	Asparagaceae	*Yucca aloifolia*	Sarcoptiformes	Acaridae	*Tyrophagus putrescentiae?*	Y	Y?	Beating
-29.12	167.95	14/10/2014	Malvaceae	*Lagunaria patersonia*	Hemiptera	Delphacidae	*Ugyops* Guérin-Méneville, 1834	?	?	Hand collection and beating
-29.12	167.95	14/10/2014	Cucurbitaceae	*Zehneria baueriana*	Hemiptera	Delphacidae	*Ugyops* sp.	?	?	Hand collection

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.05	167.97	24/02/2014	Asteraceae	*Conyza* sp.	Hemiptera	Aphididae	*Uroleucon erigeronense* (Thomas, 1878)	Y	Y	Hand collection
-29.01	167.92	16/10/2014	Asteraceae	*Sonchus oleraceus*	Hemiptera	Aphididae	*Uroleucon sonchi* (Linnaeus, 1767)	Y	Y	Hand collection
-29.05	167.93	13/06/2013	Asteraceae	*Sonchus oleraceus*	Hemiptera	Aphididae	*Uroleucon sonchi*	Y	Y	Hand collection
-29.01	167.94	24/09/2013	Arecaceae	Unknown	Mesostigmata	Urodinychidae	*Uroobovella* Berlese, 1903	Y	?	Berlese funnel from leaf litter under palms
-29.04	167.96	10/10/2014	Verbenaceae	*Lantana camara*	Coleoptera	Chrysomelidae	*Uroplata girardi* Pic, 1934	N	Y	Beating
-29.05	167.94	22/09/2013	Verbenaceae	*Lantana camara*	Coleoptera	Chrysomelidae	*Uroplata girardi*	N	Y	Hand collection
-29.02	167.97	24/02/2014	NA	NA	Coleoptera	Curculionidae	*Xyleborus norfolkensis* Schedl, 1972	N	N	*Calicoides* trap
-29.02	167.97	22/09/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Curculionidae	*Xyleborus norfolkensis*	N	N	Hand collection
-29.06	167.96	27/09/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Cerambycidae	*Xylotoles selwyni* Olliff, 1888	N	N	Hand collection
-29.06	167.96	27/09/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Cerambycidae	*Xylotoles selwyni*	N	N	Hand collection
-29.05	167.92	14/06/2013	Araucariaceae	*Araucaria heterophylla*	Coleoptera	Cerambycidae	*Xylotoles selwyni*	N	N	Hand collection
-29.02	167.94	22/12/2013	Rutaceae	*Citrus* ×*jambhiri*	Thysanoptera	Phlaeothripidae	*Yarnkothrips kolourus* Mound & Walker, 1986	Y	Y	Hand collection from dead branches
-29.02	167.95	24/12/2013	Rosaceae, Meliaceae	*Prunus persica* var. *persica*, *Azadirachta indica* A.Juss.	Thysanoptera	Phlaeothripidae	*Yarnkothrips kolourus*	Y	Y	Hand collection from dead plants
-29.02	167.95	21/12/2012; 25/12/2013	Unknown	Unknown	Thysanoptera	Phlaeothripidae	*Yarnkothrips kolourus*	Y	Y	Hand collection from dead twigs and leaves
-29.01	167.95	30/11/2014	Unknown		Thysanoptera	Phlaeothripidae	*Yarnkothrips kolourus*	Y	Y	Hand collection from dead wood
-29.05	167.92	19/05/2014	NA		Coleoptera	Leiodidae	*Zeadolopus* Broun, 1903	Y	?	Light trap
-29.04	167.99	27/11/2014	Rosaceae	*Malus pumila*	Trombidiformes	Stigmaeidae	*Zetzellia maori* Gonzalez-Rodriguez, 1965	Y	Y	Ethanol wash
-29.00	167.93	26/11/2014	Rutaceae	*Citrus* ×*aurantium*	Trombidiformes	Stigmaeidae	*Zetzellia maori*	Y	Y	Ethanol wash
-29.05	167.92	26/11/2014	Urticaceae	*Boehmeria australis*	Trombidiformes	Stigmaeidae	*Zetzellia oudemansi* Wood, 1967	Y	N	Ethanol wash
-29.02	167.93	28/11/2014	Poaceae	Unknown	Lepidoptera	Lycaenidae	*Zizina labradus* Waterhouse & Lyell, 1914	N	Y	Sweep net
-29.03	167.97	22/05/2014; 25/09/2013	Araucariaceae	*Araucaria heterophylla*	Stylommatophora	Gastrodontidae	*Zonitoides arboreus* (Say, 1817)	N	Y	Hand collection from sawn timber
-29.02	167.97	22/09/2013	NA	NA	Stylommatophora	Gastrodontidae	*Zonitoides arboreus*	N	Y	Hand collection from rocks

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Norfolk Island new record (Y/N/?)	Mainland Australia (Y/N/?)	Collection method
-29.01	167.92	16/10/2014	Araucariaceae	*Araucaria heterophylla*	Stylommatophora	Gastrodontidae	*Zonitoides arboreus*	N	Y	Hand collection
-29.05	167.92	7/10/2014	Oleaceae	*Nestegis apetala*	Araneae	Araneidae	*Zygiella* Pickard-Cambridge, 1902	Y	N	Beating

Table 4. Norfolk Island Quarantine Survey - pest and pathogen testing of *Apis mellifera* (European honey bees)

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.04	167.99	16/10/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	Small hive beetle	Nitidulidae	*Aethina tumida* Murray, 1867	Absent	Visual Inspection
-29.06	167.94	26/09/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis* (Maasen ex Claussen) L.S.Olive & Spiltoir	Absent	Visual Inspection
-29.04	167.97	16/10//2013	Black queen cell virus	*Dicistroviridae*	*Black queen cell virus*	Absent	Bee sample PCR
-29.04	167.94	16/10/2013	Black queen cell virus	*Dicistroviridae*	*Black queen cell virus*	Absent	Bee sample PCR
-29.04	167.97	25/09/2013	Black queen cell virus	*Dicistroviridae*	*Black queen cell virus*	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	Braula fly	Braulidae	*Braula coeca* Nitsch, 1818	Absent	Visual Inspection
-29.00	167.92	25/09/2013	Chronic bee paralysis virus	Unassigned	Chronic bee paralysis virus	Absent	Bee sample PCR
-29.00	167.92	25/09/2013	Chronic bee paralysis virus	Unassigned	Chronic bee paralysis virus	Absent	Bee sample PCR
-29.02	167.96	25/09/2013	Deformed wing virus	*Iflaviridae*	*Deformed wing virus*	Absent	Bee sample PCR
-29.04	167.99	26/09/2013	Deformed wing virus	*Iflaviridae*	*Deformed wing virus*	Absent	Bee sample PCR
-29.04	167.99	2409/2013	Deformed wing virus	*Iflaviridae*	*Deformed wing virus*	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	Greater wax moth	Pyralidae	*Galleria mellonella* (Linnaeus, 1758)	Absent	Visual Inspection
-29.06	167.94	26/09/2013	Israeli acute paralysis virus	*Dicistroviridae*	*Israeli acute paralysis virus*	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	Kashmir bee virus	*Dicistroviridae*	*Kashmir bee virus*	Absent	Bee sample PCR
-29.04	167.99	26/09/2013	Lake sinai virus 1	Unassigned	Lake sinai virus 1	Absent	Bee sample PCR
-29.00	167.92	25/09/2013	Lake sinai virus 2	Unassigned	Lake Sinai virus 2	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius* (ex White 1912) Bailey and Collins 1983	Absent	Visual Inspection
-29.06	167.94	26/09/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae* (White 1906) Ash *et al.* 1994	Absent	Visual Inspection
-29.06	167.94	26/09/2013	Sacbrood virus	*Iflaviridae*	*Sacbrood virus*	Absent	Visual Inspection
-29.02	167.96	25/09/2013	Sacbrood virus	*Iflaviridae*	*Sacbrood virus*	Absent	Bee sample PCR
-29.00	167.92	24/09/2013	Slow paralysis virus	*Iflaviridae*	*Slow bee paralysis virus*	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae* Delfinado & Baker, 1962	Absent	Visual Inspection
-29.06	167.94	26/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae* Anderson & Morgan, 2007	Absent	Visual Inspection

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.06	167.94	26/09/2013	Varroa mite	Varroidae	*Varroa destructor* Truman & Anderson, 2000	Absent	Visual Inspection
-29.06	167.94	26/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni* Oudemans, 1904	Absent	Visual Inspection
-29.01	167.92	9/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi* (Rennie, 1921)	Absent	Live bee sampling
-29.01	167.92	25/09/2013	Lesser wax moth	Pyralidae	*Achroia grisella* (Fabricius, 1794)	Present	Visual Inspection
-29.01	167.92	9/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.01	167.92	25/09/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.01	167.92	9/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.01	167.92	9/10/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.01	167.92	25/09/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.01	167.92	9/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.01	167.92	25/09/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.01	167.92	25/09/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.01	167.92	9/10/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.01	167.92	9/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae* Prell, 1926	Absent	Live bee sampling
-29.01	167.92	9/10/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.01	167.92	25/09/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.01	167.92	25/09/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae* (White 1906) Ash *et al.* 1994	Absent	Visual Inspection
-29.01	167.92	9/10/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.01	167.92	9/10/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Visual Inspection
-29.01	167.92	25/09/2013	Sacbrood virus	*Iflaviridae*	*Sacbrood virus*	Absent	Visual Inspection
-29.01	167.92	9/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.01	167.92	25/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.01	167.92	9/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.01	167.92	25/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.01	167.92	9/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.01	167.92	25/09/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.01	167.92	9/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.01	167.92	9/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.01	167.92	25/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.01	167.92	24/09/2013	Lake sinai virus 1	Unassigned	Lake Sinai virus 1	Present	Bee sample PCR
-29.01	167.92	8/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.01	167.92	10/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Apithor traps left in for 2-weeks, for two weeks, then removed and inspected

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.01	167.92	26/09/2013	Black queen cell virus	*Dicistroviridae*	*Black queen cell virus*	Absent	Bee sample PCR
-29.01	167.92	27/09/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Sticky mat + acaricide strip
-29.01	167.92	26/09/2013	Chronic bee paralysis virus	Unassigned	Chronic bee paralysis virus	Absent	Bee sample PCR
-29.01	167.92	25/09/2013	Deformed wing virus	*Iflaviridae*	*Deformed wing virus*	Absent	Bee sample PCR
-29.01	167.92	25/09/2013	Israeli acute paralysis virus	*Dicistroviridae*	*Israeli acute paralysis virus*	Absent	Bee sample PCR
-29.01	167.92	25/09/2013	Kashmir bee virus	*Dicistroviridae*	*Kashmir bee virus*	Absent	Bee sample PCR
-29.01	167.92	24/09/2013	Lake sinai virus 2	Unassigned	Lake Sinai virus 2	Absent	Bee sample PCR
-29.01	167.92	8/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.01	167.92	8/10/2013	Nosema	Nosematidae	*Nosema apis*	Absent	Live bee sampling + PCR analysis
-29.01	167.92	8/10/2013	Nosema	Nosematidae	*Nosema ceranae*	Present	Live bee sampling + PCR analysis
-29.01	167.92	25/09/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Bee sample PCR
-29.01	167.92	26/09/2013	Slow paralysis virus	*Iflaviridae*	*Slow bee paralysis virus*	Absent	Bee sample PCR
-29.01	167.92	27/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Sticky mat + acaricide
-29.01	167.92	27/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Sticky mat + acaricide
-29.01	167.92	27/09/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Sticky mat + acaricide strip
-29.01	167.92	27/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Sticky mat + acaricide strip
-29.03	167.95	25/09/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.03	167.95	25/09/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.03	167.95	25/09/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.03	167.95	25/09/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.03	167.95	27/09/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Sticky mat + acaricide strip
-29.03	167.95	25/09/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.03	167.95	25/09/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.03	167.95	25/09/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.03	167.95	25/09/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Visual Inspection
-29.03	167.95	25/09/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Visual Inspection
-29.03	167.95	25/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.03	167.95	27/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Sticky mat + acaricide
-29.03	167.95	25/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.03	167.95	27/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Sticky mat + acaricide
-29.03	167.95	25/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.03	167.95	25/09/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.03	167.95	27/09/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Sticky mat + acaricide strip

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.03	167.95	25/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.03	167.95	27/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Sticky mat + acaricide strip
-29.03	167.95	25/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.04	167.93	9/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.04	167.93	9/10/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.04	167.93	9/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.04	167.93	10/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Apithor traps left in for 2-two weeks, then removed and inspected
-29.04	167.93	9/10/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.04	167.93	9/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.04	167.93	9/10/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.04	167.93	9/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.04	167.93	9/10/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.04	167.93	9/10/2013	Nosema	Nosematidae	*Nosema apis* E.Zander	Absent	Live bee sampling + PCR analysis
-29.04	167.93	9/10/2013	Nosema	Nosematidae	*Nosema ceranae* I.Fr., F.Feng, J.A.da Silva, S.B.Slemenda Y N.J.Pieniazek	Present	Live bee sampling + PCR analysis
-29.04	167.93	9/10/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.04	167.93	9/10/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Visual Inspection
-29.04	167.93	9/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.04	167.93	9/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.04	167.93	9/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.04	167.93	9/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.03	167.97	8/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.03	167.97	9/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.03	167.97	8/10/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.03	167.97	9/10/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.03	167.97	8/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.03	167.97	9/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.03	167.97	8/10/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.03	167.97	9/10/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.03	167.97	9/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.03	167.97	8/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.03	167.97	8/10/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.03	167.97	9/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.03	167.97	8/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.03	167.97	8/10/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.03	167.97	9/10/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.03	167.97	8/10/2013	Nosema	Nosematidae	*Nosema apis*	Absent	Live bee sampling + PCR analysis
-29.03	167.97	9/10/2013	Nosema	Nosematidae	*Nosema apis*	Absent	Live bee sampling + PCR analysis
-29.03	167.97	8/10/2013	Nosema	Nosematidae	*Nosema ceranae*	Present	Live bee sampling + PCR analysis
-29.03	167.97	9/10/2013	Nosema	Nosematidae	*Nosema ceranae*	Present	Live bee sampling + PCR analysis
-29.03	167.97	8/10/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.03	167.97	8/10/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Visual Inspection
-29.03	167.97	9/10/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Visual Inspection
-29.03	167.97	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.03	167.97	9/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.03	167.97	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.03	167.97	9/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.03	167.97	8/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.03	167.97	9/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.03	167.97	8/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.03	167.97	9/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.04	167.97	8/10/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.04	167.97	8/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.04	167.97	8/10/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.04	167.97	8/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.04	167.97	8/10/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.04	167.97	8/10/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.04	167.97	8/10/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.04	167.97	8/10/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Visual Inspection
-29.04	167.97	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.04	167.97	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.04	167.97	8/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.04	167.97	8/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.03	167.94	8/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.03	167.94	8/10/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.03	167.94	8/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.03	167.94	8/10/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.03	167.94	8/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.03	167.94	10/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Sticky mat + acaricide strip

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.03	167.94	8/10/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.03	167.94	8/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.03	167.94	8/10/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.03	167.94	8/10/2013	Nosema	Nosematidae	*Nosema apis*	Absent	Live bee sampling + PCR analysis
-29.03	167.94	8/10/2013	Nosema	Nosematidae	*Nosema ceranae*	Absent	Live bee sampling + PCR analysis
-29.03	167.94	8/10/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.03	167.94	8/10/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Visual Inspection
-29.03	167.94	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.03	167.94	10/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Sticky mat + acaricide
-29.03	167.94	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.03	167.94	10/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Sticky mat + acaricide
-29.03	167.94	8/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.03	167.94	10/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Sticky mat + acaricide strip
-29.03	167.94	8/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.03	167.94	10/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Sticky mat + acaricide strip
-29.03	167.94	8/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.04	167.94	9/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.04	167.94	9/10/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.04	167.94	9/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.04	167.94	9/10/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.04	167.94	9/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.04	167.94	9/10/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.04	167.94	8/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.04	167.94	9/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.04	167.94	9/10/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.04	167.94	9/10/2013	Nosema	Nosematidae	*Nosema apis*	Absent	Live bee sampling + PCR analysis
-29.04	167.94	9/10/2013	Nosema	Nosematidae	*Nosema ceranae*	Present	Live bee sampling + PCR analysis
-29.04	167.94	9/10/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.04	167.94	9/10/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Visual Inspection
-29.04	167.94	9/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.04	167.94	9/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.04	167.94	9/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.04	167.94	9/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.03	167.94	10/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Apithor traps left in for 2-weeks, for two weeks, then removed and inspected
-29.01	167.92	9/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.01	167.92	25/09/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.01	167.92	25/09/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.01	167.92	25/09/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.01	167.92	16/10//2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.01	167.92	25/09/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.01	167.92	10/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Apithor traps left in for 2-weeks, for two weeks, then removed and inspected
-29.01	167.92	25/09/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.01	167.92	26/09/2013	Black queen cell virus	*Dicistroviridae*	*Black queen cell virus*	Absent	Bee sample PCR
-29.01	167.92	25/09/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.01	167.92	27/09/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Sticky mat + acaricide strip
-29.01	167.92	26/09/2013	Chronic bee paralysis virus	Unassigned	Chronic bee paralysis virus	Absent	Bee sample PCR
-29.01	167.92	24/09/2013	Chronic bee paralysis virus	Unassigned	Chronic bee paralysis virus	Absent	Bee sample PCR
-29.01	167.92	26/09/2013	Deformed wing virus	*Iflaviridae*	*Deformed wing virus*	Absent	Bee sample PCR
-29.01	167.92	25/09/2013	Deformed wing virus	*Iflaviridae*	*Deformed wing virus*	Absent	Bee sample PCR
-29.01	167.92	25/09/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.01	167.92	26/09/2013	Israeli acute paralysis virus	*Dicistroviridae*	*Israeli acute paralysis virus*	Absent	Bee sample PCR
-29.01	167.92	25/09/2013	Israeli acute paralysis virus	*Dicistroviridae*	*Israeli acute paralysis virus*	Absent	Bee sample PCR
-29.01	167.92	25/09/2013	Kashmir bee virus	*Dicistroviridae*	*Kashmir bee virus*	Absent	Bee sample PCR
-29.01	167.92	25/09/2013	Lake sinai virus 1	Unassigned	Lake Sinai virus 1	Absent	Bee sample PCR
-29.01	167.92	25/09/2013	Lake sinai virus 1	Unassigned	Lake Sinai virus 1	Present	Bee sample PCR
-29.01	167.92	26/09/2013	Lake sinai virus 2	Unassigned	Lake Sinai virus 2	Absent	Bee sample PCR
-29.01	167.92	9/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.01	167.92	25/09/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.01	167.92	9/10/2013	Nosema	Nosematidae	*Nosema apis*	Absent	Live bee sampling + PCR analysis
-29.01	167.92	9/10/2013	Nosema	Nosematidae	*Nosema ceranae*	Absent	Live bee sampling + PCR analysis
-29.01	167.92	25/09/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.01	167.92	26/09/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Bee sample PCR
-29.01	167.92	25/09/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Visual Inspection

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.01	167.92	25/09/2013	Slow paralysis virus	*Iflaviridae*	*Slow bee paralysis virus*	Absent	Bee sample PCR
-29.01	167.92	25/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.01	167.92	27/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Sticky mat + acaricide
-29.01	167.92	25/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.01	167.92	27/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Sticky mat + acaricide
-29.01	167.92	25/09/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.01	167.92	27/09/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Sticky mat + acaricide strip
-29.01	167.92	25/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.01	167.92	27/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Sticky mat + acaricide strip
-29.01	167.92	26/09/2013	Slow paralysis virus	*Iflaviridae*	*Slow bee paralysis virus*	Absent	Bee sample PCR
-29.05	167.96	24/09/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.05	167.96	8/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.05	167.96	24/09/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.05	167.96	24/09/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.05	167.96	24/09/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.05	167.96	16/10//2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.05	167.96	16/10//2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.05	167.96	24/09/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.05	167.96	24/09/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.05	167.96	24/09/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.05	167.96	26/09/2013	Black queen cell virus	*Dicistroviridae*	*Black queen cell virus*	Absent	Bee sample PCR
-29.05	167.96	25/09/2013	Black queen cell virus	*Dicistroviridae*	*Black queen cell virus*	Absent	Bee sample PCR
-29.05	167.96	16/09/2013	Black queen cell virus	*Dicistroviridae*	*Black queen cell virus*	Absent	Bee sample PCR
-29.05	167.96	10/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Sticky mat + acaricide strip
-29.05	167.96	24/09/2013	Chronic bee paralysis virus	Unassigned	Chronic bee paralysis virus	Absent	Bee sample PCR
-29.05	167.96	26/09/2013	Chronic bee paralysis virus	Unassigned	Chronic bee paralysis virus	Absent	Bee sample PCR
-29.05	167.96	25/09/2013	Deformed wing virus	*Iflaviridae*	*Deformed wing virus*	Absent	Bee sample PCR
-29.05	167.96	26/09/2013	Deformed wing virus	*Iflaviridae*	*Deformed wing virus*	Absent	Bee sample PCR
-29.05	167.96	24/09/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.05	167.96	24/09/2013	Israeli acute paralysis virus	*Dicistroviridae*	*Israeli acute paralysis virus*	Absent	Bee sample PCR
-29.05	167.96	24/09/2013	Kashmir bee virus	*Dicistroviridae*	*Kashmir bee virus*	Absent	Bee sample PCR
-29.05	167.96	25/09/2013	Lake sinai virus 1	Unassigned	Lake Sinai virus 1	Present	Bee sample PCR

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.05	167.96	26/09/2013	Lake sinai virus 1	Unassigned	Lake Sinai virus 1	Present	Bee sample PCR
-29.05	167.96	26/09/2013	Lake sinai virus 1	Unassigned	Lake Sinai virus 1	Absent	Bee sample PCR
-29.05	167.96	26/09/2013	Lake sinai virus 2	Unassigned	Lake Sinai virus 2	Absent	Bee sample PCR
-29.05	167.96	8/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.05	167.96	24/09/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.05	167.96	8/10/2013	Nosema	Nosematidae	*Nosema apis*	Absent	Live bee sampling + PCR analysis
-29.05	167.96	8/10/2013	Nosema	Nosematidae	*Nosema ceranae*	Present	Live bee sampling + PCR analysis
-29.05	167.96	24/09/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.05	167.96	24/09/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Visual Inspection
-29.05	167.96	24/09/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Bee sample PCR
-29.05	167.96	26/09/2013	Slow paralysis virus	*Iflaviridae*	*Slow bee paralysis virus*	Absent	Bee sample PCR
-29.05	167.96	24/09/2013	Slow paralysis virus	*Iflaviridae*	*Slow bee paralysis virus*	Absent	Bee sample PCR
-29.05	167.96	24/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.05	167.96	10/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Sticky mat + acaricide
-29.05	167.96	24/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.05	167.96	10/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Sticky mat + acaricide
-29.05	167.96	24/09/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.05	167.96	10/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Sticky mat + acaricide strip
-29.05	167.96	24/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.05	167.96	10/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Sticky mat + acaricide strip
-29.03	167.97	8/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.03	167.93	9/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.03	167.93	26/09/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.03	167.93	26/09/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.03	167.93	26/09/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.03	167.93	26/09/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.03	167.93	26/09/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.03	167.93	9/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.03	167.93	26/09/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.03	167.93	26/09/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.03	167.93	26/09/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Visual Inspection
-29.03	167.93	26/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.03	167.93	26/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.03	167.93	26/09/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.03	167.93	26/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.03	167.93	10/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Apithor traps left in for 2-weeks, for two weeks, then removed and inspected
-29.03	167.93	9/10/2013	Nosema	Nosematidae	*Nosema apis*	Absent	Live bee sampling + PCR analysis
-29.03	167.93	9/10/2013	Nosema	Nosematidae	*Nosema ceranae*	Present	Live bee sampling + PCR analysis
-29.02	167.94	8/10/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.02	167.94	8/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.02	167.94	8/10/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.02	167.94	8/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.02	167.94	8/10/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.02	167.94	8/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.02	167.94	8/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.02	167.94	8/10/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.02	167.94	8/10/2013	Nosema	Nosematidae	*Nosema apis*	Absent	Live bee sampling + PCR analysis
-29.02	167.94	8/10/2013	Nosema	Nosematidae	*Nosema ceranae*	Present	Live bee sampling + PCR analysis
-29.02	167.94	8/10/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.02	167.94	8/10/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Visual Inspection
-29.02	167.94	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.02	167.94	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.02	167.94	8/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.02	167.94	8/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.03	167.96	8/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.03	167.96	26/09/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.03	167.96	24/09/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.03	167.96	24/09/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.03	167.96	24/09/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.03	167.96	16/10/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.03	167.96	26/09/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.03	167.96	24/09/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.03	167.96	8/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.03	167.96	10/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Apithor traps left in for 2-weeks, then removed and inspected
-29.03	167.96	26/09/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.03	167.96	8/10/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.03	167.96	16/09/2013	Black queen cell virus	*Dicistroviridae*	*Black queen cell virus*	Absent	Bee sample PCR
-29.03	167.96	26/09/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.03	167.96	24/09/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.03	167.96	8/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.03	167.96	25/09/2013	Chronic bee paralysis virus	Unassigned	Chronic bee paralysis virus	Absent	Bee sample PCR
-29.03	167.96	24/09/2013	Deformed wing virus	*Iflaviridae*	*Deformed wing virus*	Absent	Bee sample PCR
-29.03	167.96	26/09/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.03	167.96	24/09/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.03	167.96	8/10/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.03	167.96	26/09/2013	Israeli acute paralysis virus	*Dicistroviridae*	*Israeli acute paralysis virus*	Absent	Bee sample PCR
-29.03	167.96	24/09/2013	Israeli acute paralysis virus	*Dicistroviridae*	*Israeli acute paralysis virus*	Absent	Bee sample PCR
-29.03	167.96	26/09/2013	Kashmir bee virus	*Dicistroviridae*	*Kashmir bee virus*	Absent	Bee sample PCR
-29.03	167.96	24/09/2013	Kashmir bee virus	*Dicistroviridae*	*Kashmir bee virus*	Absent	Bee sample PCR
-29.03	167.96	24/09/2013	Lake sinai virus 1	Unassigned	Lake Sinai virus 1	Present	Bee sample PCR
-29.03	167.96	24/09/2013	Lake sinai virus 1	Unassigned	Lake Sinai virus 1	Absent	Bee sample PCR
-29.03	167.96	25/09/2013	Lake sinai virus 2	Unassigned	Lake Sinai virus 2	Absent	Bee sample PCR
-29.03	167.96	8/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.03	167.96	9/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.03	167.96	26/09/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.03	167.96	24/09/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.03	167.96	8/10/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.03	167.96	8/10/2013	Nosema	Nosematidae	*Nosema apis*	Absent	Live bee sampling + PCR analysis
-29.03	167.96	8/10/2013	Nosema	Nosematidae	*Nosema ceranae*	Present	Live bee sampling + PCR analysis
-29.03	167.96	26/09/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.03	167.96	24/09/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.03	167.96	8/10/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.03	167.96	26/09/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Bee sample PCR
-29.03	167.96	26/09/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Visual Inspection
-29.03	167.96	24/09/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Visual Inspection
-29.03	167.96	8/10/2013	Sacbrood virus	*Iflaviridae*	Sacbrood virus	Absent	Visual Inspection
-29.03	167.96	25/09/2013	Slow paralysis virus	*Iflaviridae*	*Slow bee paralysis virus*	Absent	Bee sample PCR
-29.03	167.96	24/09/2013	Slow paralysis virus	*Iflaviridae*	*Slow bee paralysis virus*	Absent	Bee sample PCR
-29.03	167.96	26/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.03	167.96	24/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.03	167.96	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.03	167.96	26/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.03	167.96	24/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.03	167.96	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.03	167.96	26/09/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.03	167.96	24/09/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.03	167.96	8/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.03	167.96	26/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.03	167.96	26/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.03	167.96	24/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.03	167.96	8/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.05	167.94	8/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.05	167.94	8/10/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.05	167.94	26/09/2013	Acute bee paralysis virus	*Dicistroviridae*	*Dicistroviridae*	Absent	Bee sample PCR
-29.05	167.94	8/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.05	167.94	8/10/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.05	167.94	8/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.05	167.94	10/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Sticky mat + acaricide strip
-29.05	167.94	8/10/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.05	167.94	8/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.05	167.94	8/10/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.05	167.94	8/10/2013	Nosema	Nosematidae	*Nosema apis*	Absent	Live bee sampling + PCR analysis
-29.05	167.94	8/10/2013	Nosema	Nosematidae	*Nosema ceranae*	Present	Live bee sampling + PCR analysis
-29.05	167.94	8/10/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.05	167.94	8/10/2013	Sacbrood virus	*Iflaviridae*	*Sacbrood virus*	Absent	Visual Inspection
-29.05	167.94	25/09/2013	Slow paralysis virus	*Iflaviridae*	*Slow bee paralysis virus*	Absent	Bee sample PCR
-29.05	167.94	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.05	167.94	10/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Sticky mat + acaricide
-29.05	167.94	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.05	167.94	10/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Sticky mat + acaricide
-29.05	167.94	8/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.05	167.94	10/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Sticky mat + acaricide strip
-29.05	167.94	8/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.05	167.94	10/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Sticky mat + acaricide strip
-29.02	167.96	9/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.02	167.96	25/09/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.02	167.96	25/09/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.02	167.96	25/09/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.02	167.96	16/10//2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.02	167.96	25/09/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.02	167.96	25/09/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.02	167.96	10/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Apithor traps left in for 2-weeks, then removed and inspected
-29.02	167.96	25/09/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.02	167.96	24/09/2013	Black queen cell virus	*Dicistroviridae*	*Black queen cell virus*	Absent	Bee sample PCR
-29.02	167.96	25/09/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.02	167.96	27/09/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Sticky mat + acaricide strip
-29.02	167.96	24/09/2013	Chronic bee paralysis virus	Unassigned	Chronic bee paralysis virus	Absent	Bee sample PCR
-29.02	167.96	25/09/2013	Chronic bee paralysis virus	Unassigned	Chronic bee paralysis virus	Absent	Bee sample PCR
-29.02	167.96	16/10//2013	Deformed wing virus	*Iflaviridae*	*Deformed wing virus*	Absent	Bee sample PCR
-29.02	167.96	25/09/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.02	167.96	25/09/2013	Israeli acute paralysis virus	*Dicistroviridae*	*Israeli acute paralysis virus*	Absent	Bee sample PCR
-29.02	167.96	25/09/2013	Kashmir bee virus	*Dicistroviridae*	*Kashmir bee virus*	Absent	Bee sample PCR
-29.02	167.96	16/10//2013	Lake sinai virus 1	Unassigned	Lake Sinai virus 1	Present	Bee sample PCR
-29.02	167.96	26/09/2013	Lake sinai virus 2	Unassigned	Lake Sinai virus 2	Absent	Bee sample PCR
-29.02	167.96	25/09/2013	Lake sinai virus 2	Unassigned	Lake Sinai virus 2	Absent	Bee sample PCR
-29.02	167.96	9/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.02	167.96	25/09/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.02	167.96	9/10/2013	Nosema	Nosematidae	*Nosema apis*	Absent	Live bee sampling + PCR analysis
-29.02	167.96	9/10/2013	Nosema	Nosematidae	*Nosema ceranae*	Present	Live bee sampling + PCR analysis
-29.02	167.96	25/09/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.02	167.96	25/09/2013	Sacbrood virus	*Iflaviridae*	*Sacbrood virus*	Absent	Visual Inspection
-29.02	167.96	24/09/2013	Sacbrood virus	*Iflaviridae*	*Sacbrood virus*	Absent	Bee sample PCR
-29.02	167.96	25/09/2013	Sacbrood virus	*Iflaviridae*	*Sacbrood virus*	Absent	Bee sample PCR
-29.02	167.96	16/10/2013	Slow paralysis virus	*Iflaviridae*	*Slow bee paralysis virus*	Absent	Bee sample PCR
-29.02	167.96	25/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.02	167.96	27/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Sticky mat + acaricide
-29.02	167.96	27/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Sticky mat + acaricide
-29.02	167.96	25/09/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.02	167.96	27/09/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Sticky mat + acaricide strip
-29.02	167.96	25/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.02	167.96	27/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Sticky mat + acaricide strip
-29.06	167.94	26/09/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.06	167.94	26/09/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	Acute bee paralysis virus	*Dicistroviridae*	*Acute bee paralysis virus*	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.06	167.94	10/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Apithor traps left in for two weeks, then removed and inspected
-29.06	167.94	24/09/2013	Black queen cell virus	*Dicistroviridae*	*Black queen cell virus*	Absent	Bee sample PCR
-29.06	167.94	25/09/2013	Black queen cell virus	*Dicistroviridae*	*Black queen cell virus*	Absent	Bee sample PCR
-29.06	167.94	16/10//2013	Black queen cell virus	*Dicistroviridae*	*Black queen cell virus*	Absent	Bee sample PCR
-29.06	167.94	10/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Sticky mat + acaricide strip
-29.06	167.96	26/09/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.06	167.94	24/09/2013	Chronic bee paralysis virus	Unassigned	Chronic bee paralysis virus	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	Chronic bee paralysis virus	Unassigned	Chronic bee paralysis virus	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	Deformed wing virus	*Iflaviridae*	*Deformed wing virus*	Absent	Bee sample PCR
-29.06	167.94	16/10/2013	Deformed wing virus	*Iflaviridae*	*Deformed wing virus*	Absent	Bee sample PCR
-29.06	167.94	25/09/2013	Deformed wing virus	*Iflaviridae*	*Deformed wing virus*	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.06	167.94	26/09/2013	Israeli acute paralysis virus	*Dicistroviridae*	*Israeli acute paralysis virus*	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	Kashmir bee virus	*Dicistroviridae*	Kashmir bee virus	Absent	Bee sample PCR
-29.06	167.94	16/10/2013	Lake sinai virus 1	Unassigned	Lake Sinai virus 1	Present	Bee sample PCR
-29.06	167.94	16/10/2013	Lake sinai virus 1	Unassigned	Lake Sinai virus 1	Present	Bee sample PCR
-29.06	167.94	24/09/2013	Lake sinai virus 2	Unassigned	Lake Sinai virus 2	Absent	Bee sample PCR

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.06	167.94	26/09/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.06	167.94	8/10/2013	Nosema	Nosematidae	*Nosema apis*	Absent	Live bee sampling + PCR analysis
-29.06	167.94	8/10/2013	Nosema	Nosematidae	*Nosema ceranae*	Present	Live bee sampling + PCR analysis
-29.06	167.94	26/09/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.06	167.94	26/09/2013	Sacbrood virus	*Iflaviridae*	*Sacbrood virus*	Absent	Visual Inspection
-29.06	167.94	26/09/2013	Sacbrood virus	*Iflaviridae*	*Sacbrood virus*	Absent	Bee sample PCR
-29.06	167.94	24/09/2013	Sacbrood virus	*Iflaviridae*	*Sacbrood virus*	Absent	Bee sample PCR
-29.06	167.94	25/09/2013	Sacbrood virus	*Iflaviridae*	*Sacbrood virus*	Absent	Bee sample PCR
-29.06	167.94	16/10/2013	Slow paralysis virus	*Iflaviridae*	*Slow bee paralysis virus*	Absent	Bee sample PCR
-29.06	167.94	24/09/2013	Slow paralysis virus	*Iflaviridae*	*Slow bee paralysis virus*	Absent	Bee sample PCR
-29.06	167.94	25/09/2013	Slow paralysis virus	*Iflaviridae*	*Slow bee paralysis virus*	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	Slow paralysis virus	*Iflaviridae*	*Slow bee paralysis virus*	Absent	Bee sample PCR
-29.06	167.94	26/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.06	167.94	10/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Sticky mat + acaricide
-29.06	167.94	26/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.06	167.94	10/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Sticky mat + acaricide
-29.06	167.94	26/09/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.06	167.94	10/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Sticky mat + acaricide strip
-29.06	167.94	10/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Sticky mat + acaricide strip
-29.05	167.97	8/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.05	167.97	8/10/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.05	167.97	8/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.05	167.97	8/10/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.05	167.97	8/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.05	167.97	10/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Sticky mat + acaricide strip
-29.05	167.97	8/10/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.05	167.97	8/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.05	167.97	8/10/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.05	167.97	8/10/2013	Nosema	Nosematidae	*Nosema apis*	Absent	Live bee sampling + PCR analysis
-29.05	167.97	8/10/2013	Nosema	Nosematidae	*Nosema ceranae*	Present	Live bee sampling + PCR analysis
-29.05	167.97	8/10/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.05	167.97	8/10/2013	Sacbrood virus	*Iflaviridae*	*Sacbrood virus*	Absent	Visual Inspection
-29.05	167.97	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.05	167.97	10/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Sticky mat + acaricide

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.05	167.97	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.05	167.97	10/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Sticky mat + acaricide
-29.05	167.97	8/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.05	167.97	10/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Sticky mat + acaricide strip
-29.05	167.97	8/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.05	167.97	10/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Sticky mat + acaricide strip
-29.02	167.95	9/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.02	167.95	9/10/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.02	167.95	9/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.02	167.95	9/10/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.02	167.95	9/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.02	167.95	9/10/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.02	167.95	9/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.02	167.95	9/10/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.02	167.95	9/10/2013	Nosema	Nosematidae	*Nosema apis*	Absent	Live bee sampling + PCR analysis
-29.02	167.95	9/10/2013	Nosema	Nosematidae	*Nosema ceranae*	Present	Live bee sampling + PCR analysis
-29.02	167.95	9/10/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.02	167.95	9/10/2013	Sacbrood virus	*Iflaviridae*	*Sacbrood virus*	Absent	Visual Inspection
-29.02	167.95	9/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.02	167.95	9/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.02	167.95	9/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.02	167.95	9/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.03	167.98	8/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.03	167.98	8/10/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.03	167.98	8/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.03	167.98	8/10/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.03	167.98	10/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Sticky mat + acaricide strip
-29.03	167.98	8/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.03	167.98	8/10/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.03	167.98	8/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.03	167.98	8/10/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.03	167.98	8/10/2013	Nosema	Nosematidae	*Nosema apis*	Absent	Live bee sampling + PCR analysis
-29.03	167.98	8/10/2013	Nosema	Nosematidae	*Nosema ceranae*	Absent	Live bee sampling + PCR analysis
-29.03	167.98	8/10/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.03	167.98	8/10/2013	Sacbrood virus	*Iflaviridae*	*Sacbrood virus*	Absent	Visual Inspection
-29.03	167.98	10/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Sticky mat + acaricide
-29.03	167.98	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.03	167.98	10/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Sticky mat + acaricide
-29.03	167.98	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.03	167.98	10/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Sticky mat + acaricide strip
-29.03	167.98	8/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.03	167.98	10/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Sticky mat + acaricide strip
-29.03	167.98	8/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.03	167.99	26/09/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.03	167.99	26/09/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.03	167.99	26/09/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.03	167.99	26/09/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.03	167.99	26/09/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.03	167.99	26/09/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.03	167.99	26/09/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.03	167.99	26/09/2013	Sacbrood virus	*Iflaviridae*	*Sacbrood virus*	Absent	Visual Inspection
-29.03	167.99	26/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.03	167.99	26/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.03	167.99	26/09/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.03	167.99	26/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.04	167.99	8/10/2013	Tracheal mite	Tarsonemidae	*Acarapis woodi*	Absent	Live bee sampling
-29.04	167.99	25/09/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.04	167.99	8/10/2013	Lesser wax moth	Pyralidae	*Achroia grisella*	Present	Visual Inspection
-29.04	167.99	25/09/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.04	167.99	8/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Visual Inspection
-29.04	167.99	10/10/2013	Small hive beetle	Nitidulidae	*Aethina tumida*	Absent	Apithor traps left in for two weeks, then removed and inspected
-29.04	167.99	25/09/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.04	167.99	8/10/2013	Chalkbrood	Ascosphaeraceae	*Ascosphaera apis*	Absent	Visual Inspection
-29.04	167.99	8/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.04	167.99	25/09/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Visual Inspection
-29.04	167.99	27/09/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Sticky mat + acaricide strip
-29.04	167.99	10/10/2013	Braula fly	Braulidae	*Braula coeca*	Absent	Sticky mat + acaricide strip
-29.04	167.99	25/09/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection

Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.04	167.99	8/10/2013	Greater wax moth	Pyralidae	*Galleria mellonella*	Absent	Visual Inspection
-29.04	167.99	8/10/2013	Amoeba disease	Malpighamoebidae	*Malpighamoeba mellificae*	Absent	Live bee sampling
-29.04	167.99	25/09/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.04	167.99	8/10/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Visual Inspection
-29.04	167.99	8/10/2013	Nosema	Nosematidae	*Nosema apis*	Absent	Live bee sampling + PCR analysis
-29.04	167.99	8/10/2013	Nosema	Nosematidae	*Nosema ceranae*	Present	Live bee sampling + PCR analysis
-29.04	167.99	25/09/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.04	167.99	8/10/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Visual Inspection
-29.04	167.99	25/09/2013	Sacbrood virus	*Iflaviridae*	*Sacbrood virus*	Absent	Visual Inspection
-29.04	167.99	8/10/2013	Sacbrood virus	*Iflaviridae*	*Sacbrood virus*	Absent	Visual Inspection
-29.04	167.99	25/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.04	167.99	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Visual Inspection
-29.04	167.99	10/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps clarae*	Absent	Sticky mat + acaricide
-29.04	167.99	25/09/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.04	167.99	8/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Visual Inspection
-29.04	167.99	10/10/2013	Tropilaelaps mite	Laelapidae	*Tropilaelaps mercedesae*	Absent	Sticky mat + acaricide
-29.04	167.99	25/09/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.04	167.99	8/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Visual Inspection
-29.04	167.99	10/10/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Sticky mat + acaricide strip
-29.04	167.99	27/09/2013	Varroa mite	Varroidae	*Varroa destructor*	Absent	Sticky mat + acaricide strip
-29.04	167.99	25/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.04	167.99	8/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Visual Inspection
-29.04	167.99	10/10/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Sticky mat + acaricide strip
-29.04	167.99	27/09/2013	Varroa mite	Varroidae	*Varroa jacobsoni*	Absent	Sticky mat + acaricide strip
-29.04	167.94	1/02/2010	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Composite honey sample
-29.04	167.94	1/04/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Composite honey sample
-29.04	167.94	1/09/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Composite honey sample
-29.04	167.94	1/10/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Composite honey sample
-29.04	167.94	1/12/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Composite honey sample
-29.04	167.94	1/04/2014	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Composite honey sample
-29.04	167.94	1/02/2010	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Composite honey sample
-29.04	167.94	1/04/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Composite honey sample
-29.04	167.94	1/09/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Composite honey sample

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Latitude	Longitude	Date	Test target common name	Test target Family	Test target organism	Testing results	Collection method
-29.04	167.94	1/10/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Composite honey sample
-29.04	167.94	1/12/2013	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Composite honey sample
-29.04	167.94	1/04/2014	European foulbrood	Enterococcaceae	*Melissococcus plutonius*	Absent	Composite honey sample
-29.04	167.94	1/02/2010	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Composite honey sample
-29.04	167.94	1/12/2012	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Composite honey sample
-29.04	167.94	1/04/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Composite honey sample
-29.04	167.94	1/09/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Composite honey sample
-29.04	167.94	1/10/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Composite honey sample
-29.04	167.94	1/12/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Composite honey sample
-29.04	167.94	1/04/2014	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Composite honey sample
-29.04	167.94	1/02/2010	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Composite honey sample
-29.04	167.94	1/12/2012	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Composite honey sample
-29.04	167.94	1/04/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Composite honey sample
-29.04	167.94	1/09/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Composite honey sample
-29.04	167.94	1/10/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Composite honey sample
-29.04	167.94	1/12/2013	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Composite honey sample
-29.04	167.94	1/04/2014	American foulbrood	Paenibacillaceae	*Paenibacillus larvae*	Absent	Composite honey sample

Table 5. Norfolk Island Quarantine Survey - non-fungal plant pathogens

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Collection method	Notes
-29.04	167.96	10/10/2013	Solanaceae	*Capsicum annuum* L.	*Rhizobiales*	*Rhizobiaceae*	*'Candidatus* Liberibacter solanacearum', Liefting	Hand collection	JT-123; ringspots; identified by PCR
-29.04	167.96	13/11/2014	Solanaceae	*Capsicum annuum*	*Rhizobiales*	*Rhizobiaceae*	*'Candidatus* Liberibacter solanacearum',	Hand collection	JT513; identified by PCR
-29.00	167.93	16/11/2014	Solanaceae	*Capsicum annuum*	*Rhizobiales*	*Rhizobiaceae*	*'Candidatus* Liberibacter solanacearum',	Hand collection	JT535; identified by PCR
-29.00	167.93	16/11/2015	Solanaceae	*Datura stramonium* L.	*Rhizobiales*	*Rhizobiaceae*	*'Candidatus* Liberibacter solanacearum',	Hand collection	AGNov14-38; identified by PCR
-29.01	167.93	13/11/2014	Solanaceae	*Nicandra physalodes* (L.) Gaertn.	*Rhizobiales*	*Rhizobiaceae*	*'Candidatus* Liberibacter solanacearum',	Hand collection	JT521B; identified by PCR
-29.00	167.93	16/11/2015	Solanaceae	*Nicandra physalodes*	*Rhizobiales*	*Rhizobiaceae*	*'Candidatus* Liberibacter solanacearum',	Hand collection	AGNov14-36; identified by PCR
-29.01	167.93	16/11/2015	Solanaceae	*Solanum linnaeanum* Hepper & P.-M.L.Jaeger	*Rhizobiales*	*Rhizobiaceae*	*'Candidatus* Liberibacter solanacearum',	Hand collection	AGNov14-37; identified by PCR
-29.03	167.99	20/02/2014	Solanaceae	*Solanum lycopersicum* L.	*Rhizobiales*	*Rhizobiaceae*	*'Candidatus* Liberibacter solanacearum',	Hand collection	JT-218; interveinal chlorosis, cupping; Identified by PCR and sequencing
-29.03	167.99	20/02/2014	Solanaceae	*Solanum lycopersicum*	*Rhizobiales*	*Rhizobiaceae*	*'Candidatus* Liberibacter solanacearum',	Hand collection	FebAG-9; upward leaf curling; identified by PCR and sequencing
-29.04	167.96	13/11/2014	Solanaceae	*Solanum lycopersicum*	*Rhizobiales*	*Rhizobiaceae*	*'Candidatus* Liberibacter solanacearum',	Hand collection	JT511; identified by PCR
-29.00	167.93	16/11/2014	Solanaceae	*Solanum lycopersicum*	*Rhizobiales*	*Rhizobiaceae*	*'Candidatus* Liberibacter solanacearum',	Hand collection	JT534; identified by PCR
-29.05	167.93	18/11/2014	Solanaceae	*Solanum lycopersicum*	*Rhizobiales*	*Rhizobiaceae*	*'Candidatus* Liberibacter solanacearum',	Hand collection	JT547; identified by PCR
-29.04	167.99	18/11/2014	Solanaceae	*Solanum lycopersicum*	*Rhizobiales*	*Rhizobiaceae*	*'Candidatus* Liberibacter solanacearum',	Hand collection	JT566; volunteer cherry tomato; identified by PCR

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Collection method	Notes
-29.00	167.93	13/11/2014	Solanaceae	*Solanum melongena* L.	*Rhizobiales*	*Rhizobiaceae*	*'Candidatus* Liberibacter solanacearum'	Hand collection	AGNov14-14; identified by PCR
-29.04	167.99	18/11/2014	Solanaceae	*Solanum nodiflorum* Jacq.	*Rhizobiales*	*Rhizobiaceae*	*'Candidatus* Liberibacter solanacearum'	Hand collection	JT568; identified by PCR
-29.01	167.93	16/11/2015	Solanaceae	*Solanum nodiflorum*	*Rhizobiales*	*Rhizobiaceae*	*'Candidatus* Liberibacter solanacearum'	Hand collection	AGNov14-39; 6 samples; identified by PCR
-29.04	167.99	18/11/2014	Solanaceae	*Solanum tuberosum* L.	*Rhizobiales*	*Rhizobiaceae*	*'Candidatus* Liberibacter solanacearum'	Hand collection	Tuber with internal necrosis; identified by PCR
-29.03	167.99	20/02/2014	Solanaceae	*Capsicum annuum*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	JT-219; bright yellow blotches; identified by ELISA
-29.04	167.96	13/11/2014	Solanaceae	*Capsicum annuum*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	JT512; identified by ELISA
-29.00	167.93	13/11/2014	Solanaceae	*Capsicum annuum*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	JT521A; identified by ELISA
-29.03	167.99	30/05/2014	Solanaceae	*Capsicum annuum*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	JT336; white blotches, rings; identified by ELISA
-29.03	167.99	30/05/2014	Solanaceae	*Capsicum annuum*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	JT337; white blotches, rings. Identified by ELISA
-29.03	167.99	30/05/2014	Solanaceae	*Capsicum annuum*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	JT338; white blotches, rings. Identified by ELISA
-29.05	167.93	15/11/2014	Asteraceae	*Cichorium intybus* L.	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	AGNov14-29; identified by ELISA
-29.05	167.93	18/11/2014	Apiaceae	*Coriandrum sativum* L.	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	JT544; mosaic, AMV; identified by ELISA
-29.06	167.96	19/02/2014	Solanaceae	*Datura stramonium*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	FebAG-6; strong mosaic; identified by ELISA
-29.04	167.96	19/02/2014	Plumbaginaceae	*Limonium latifolium* (Sm.) Kuntze	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	JT-203; strong chlorotic spots and rings; identified by ELISA
-29.05	167.93	13/06/2013	Fabaceae	*Medicago sativa* L.	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	NIBS-116; identified by ELISA
-29.04	167.93	13/06/2013	Fabaceae	*Medicago sativa*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	NIBS-117; leaf mottle; identified by ELISA

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Collection method	Notes
-29.05	167.93	13/06/2013	Fabaceae	*Medicago sativa*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	NIBS-118; leaf mottle; identified by ELISA
-29.05	167.93	13/06/2013	Fabaceae	*Medicago sativa*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	NIBS-119; prominent mosaic and interveinal yellowing; identified by ELISA
-29.05	167.93	13/06/2013	Fabaceae	*Medicago sativa*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	NIBS-120; prominent yellow mosaic; Identified by ELISA
-29.05	167.93	13/06/2013	Fabaceae	*Medicago sativa*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	NIBS-121; prominent yellow mosaic; identified by ELISA
-29.05	167.93	13/06/2013	Fabaceae	*Medicago sativa*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	NIBS-122; samples mostly asymptomatic or with mild mottle; identified by ELISA
-29.03	167.93	14/10/2013	Fabaceae	*Medicago sativa*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	OctAG-23; weedy plant, mosaic; identified by PCR and sequencing
-29.04	167.96	13/11/2014	Solanaceae	*Nicandra physalodes*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	AGNov14-8; strong yellow mosaic; photo 2903; identified by ELISA
-29.05	167.94	14/11/2014	Solanaceae	*Nicandra physalodes*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	AGNov14-24; vein clearing; photo 4518; AMV; identified by ELISA
-29.04	167.96	18/11/2014	Solanaceae	*Petunia ×atkinsiana* (Sweet) D.Don ex W.H.Baxter	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	JT559; flower break, oak leaf; identified by ELISA
-29.04	167.96	13/11/2014	Solanaceae	*Solanum lycopersicum*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	JT507; BPV; identified by ELISA
-29.05	167.94	15/11/2014	Solanaceae	*Solanum nodiflorum*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	JT526; identified by ELISA
-29.05	167.93	15/11/2014	Asteraceae	*Sonchus oleraceus* L.	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	AGNov14-32; identified by ELISA

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Collection method	Notes
-29.04	167.96	10/10/2013	Lamiaceae	*Stachys arvensis* (L.) L.	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	OctAG-12; bright yellow mosaic; identified by ELISA
-29.05	167.94	14/11/2014	Lamiaceae	*Stachys arvensis*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	AGNov14-25; photo 4519, AMV, yellow mosaic; identified by ELISA
-29.05	167.95	14/10/2013	Fabaceae	*Trifolium repens* L. var. *repens*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	JT-172; yellow mosaic; identified by ELISA
-29.05	167.93	15/11/2014	Fabaceae	*Trifolium repens* var. *repens*	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	AGNov14-31; identified by ELISA
-29.03	167.93	14/10/2013	Fabaceae	Unknown	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	JT175; yellow mosaic; identified by ELISA
-29.03	167.93	14/10/2013	Unknown	Unknown	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	JT177; vein mosaic. identified by ELISA
-29.04	167.96	13/10/2014	Fabaceae	*Vicia faba* L.	Unassigned	*Bromoviridae*	*Alfalfa mosaic virus*	Hand collection	AGOct14-7; about 10% infection; strong mosaic, inward rolling of leaves; identified by ELISA
-29.04	167.96	10/10/2013	Alstroemeriaceae	*Alstroemeria* L.	Unassigned	*Potyviridae*	*Alstroemeria mosaic virus*	Hand collection	JT-116; mosaic; identified by PCR and sequencing
-29.04	167.96	10/10/2013	Rosaceae	*Malus pumila* Mill.	Unassigned	*Bromoviridae*	*Apple mosaic virus*	Hand collection	JT-121; mosaic, seedling Granny Smith, green fruit with red blush; identified by PCR and sequencing
-29.02	167.96	17/06/2013	Musaceae	*Musa* L. AAB Group	Unassigned	*Caulimoviridae*	*Banana streak IM virus*	Hand collection	JT-63; some yellow blotches, identified by PCR and sequencing
-29.03	167.99	14/06/2013	Musaceae	*Musa* L. AAAA Group, cv. Williams	Unassigned	*Caulimoviridae*	*Banana streak OL virus*	Hand collection	NIBS-211; all followers in a clump with BSV symptoms; 12 yr old planting; identified by PCR and sequencing

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Collection method	Notes
-29.05	167.93	18/11/2014	Fabaceae	*Phaseolus vulgaris* L.	Unassigned	*Potyviridae*	*Bean yellow mosaic virus*	Hand collection	JT555; mosaic, leaf down curling; identified by PCR and sequencing
-29.00	167.93	12/06/2013 0:00	Apiaceae	*Coriandrum sativum*	Unassigned	*Potyviridae*	*Carrot virus Y*	Hand collection	Mosaic
-29.06	167.96	12/10/2013	Araceae	*Colocasia esculenta* (L.) Schott	Unassigned	*Potyviridae*	*Commelina mild mosaic virus*	Hand collection	JT-161; mosaic; identified by PCR
-29.12	167.95	12/11/2014	Commelinaceae	*Commelina cyanea* R.Br.	Unassigned	*Potyviridae*	Commelina mild mosaic virus	Hand collection	JT501; Philip Island; identified by PCR and sequencing
-29.12	167.95	12/11/2014	Commelinaceae	*Commelina cyanea*	Unassigned	*Potyviridae*	*Commelina mild mosaic virus*	Hand collection	JT503; identified by PCR and sequencing
-29.01	167.93	13/06/2013	Commelinaceae	*Commelina cyanea*	Unassigned	*Potyviridae*	*Commelina mild mosaic virus*	Hand collection	JT-12; mosaic; identified by PCR and sequencing
-29.01	167.93	13/06/2013	Commelinaceae	*Commelina cyanea*	Unassigned	*Potyviridae*	*Commelina mild mosaic virus*	Hand collection	JT-17; mosaic; identified by PCR and sequencing
-29.03	167.99	14/06/2013	Commelinaceae	*Commelina cyanea*	Unassigned	*Potyviridae*	*Commelina mild mosaic virus*	Hand collection	JT-29; identified by PCR and sequencing
-29.03	167.94	16/06/2013	Commelinaceae	*Commelina cyanea*	Unassigned	*Potyviridae*	*Commelina mild mosaic virus*	Hand collection	JT-4; identified by PCR and sequencing
-29.03	167.94	16/06/2013	Commelinaceae	*Commelina cyanea*	Unassigned	*Potyviridae*	*Commelina mild mosaic virus*	Hand collection	JT-51; mosaic; identified by PCR and sequencing
-29.06	167.97	17/06/2013	Commelinaceae	*Commelina cyanea*	Unassigned	*Potyviridae*	*Commelina mild mosaic virus*	Hand collection	JT-65; identified by PCR and sequencing
-29.03	167.99	14/06/2013	Commelinaceae	*Commelina cyanea*	Unassigned	*Potyviridae*	*Commelina mild mosaic virus*	Hand collection	NIBS-212; identified by PCR and sequencing
-29.00	167.93	9/10/2013	Commelinaceae	*Commelina cyanea*	Unassigned	*Potyviridae*	*Commelina mild mosaic virus*	Hand collection	JT-112; mosaic; identified by PCR and sequencing
-29.00	167.93	22/02/2014	Commelinaceae	*Commelina cyanea*	Unassigned	*Potyviridae*	*Commelina mild mosaic virus*	Hand collection	JT-243; mosaic. Identified by PCR and sequencing

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Collection method	Notes
-29.06	167.97	17/06/2013	Commelinaceae	*Commelina cyanea*	Unassigned	*Potyviridae*	*Commelina mild mosaic virus*	Hand collection	JT67; mosaic; identified by PCR and sequencing
-29.05	167.93	18/11/2014	Fabaceae	*Pisum sativum* L.	Unassigned	*Potyviridae*	*Commelina mild mosaic virus*	Hand collection	Stunting, chlorotic vein flecks, chlorosis
-29.00	167.93	9/10/2013	Cucurbitaceae	*Cucurbita pepo* L.	Unassigned	*Bromoviridae*	*Cucumber mosaic virus*	Hand collection	OctAG-2; 1 symptomatic plant in 2 x 60 m rows; chlorotic spots and vein yellowing on leaves; chlorotic rings and bumpiness on fruit; identified by PCR
-29.00	167.93	9/10/2013	Cucurbitaceae	*Cucurbita pepo*	Unassigned	*Bromoviridae*	*Cucumber mosaic virus*	Hand collection	OctAG-5; veinal yellowing, chlorotic spotting; identified by PCR
-29.04	167.96	10/10/2013	Orchidaceae	*Cattleya* Lindl.	*Tymovirales*	*Alphaflexiviridae*	*Cymbidium mosaic virus*	Hand collection	JT-113; necrotic rings, flower break; identified by serology (immunostrip)
-29.04	167.96	10/10/2013	Orchidaceae	*Cattleya* sp.	*Tymovirales*	*Alphaflexiviridae*	*Cymbidium mosaic virus*	Hand collection	JT-114B; necrotic spots, yellow small; identified by serology (immunostrip)
-29.04	167.96	10/10/2013	Orchidaceae	*Dendrobium* Sw.	*Tymovirales*	*Alphaflexiviridae*	*Cymbidium mosaic virus*	Hand collection	JT; identified by serology (immunostrip)
-29.04	167.99	14/06/2013	Orchidaceae	*Epidendrum* L. hybrid	*Tymovirales*	*Alphaflexiviridae*	*Cymbidium mosaic virus*	Hand collection	NIBS206; identified by serology (immunostrip)
-29.04	167.96	10/10/2013	Orchidaceae	*Phalaenopsis* Blume	*Tymovirales*	*Alphaflexiviridae*	*Cymbidium mosaic virus*	Hand collection	OctAG-7; black necrotic spots on flowers; identified by serology (immunostrip)
-29.03	167.99	21/02/2014	Poaceae	*Digitaria ciliaris* (Retz.) Koeler	*Mononegavirales*	*Rhabdoviridae*	*Digitaria striate virus*	Hand collection	JT-240; chlorosis stripes; identified by electron microscopy

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Collection method	Notes
-29.03	167.99	21/02/2014	Poaceae	*Digitaria ciliaris*	*Mononegavirales*	*Rhabdoviridae*	*Digitaria striate virus*	Hand collection	JT-241; chlorosis stripes; identified by electron microscopy
-29.03	167.99	21/02/2014	Poaceae	*Digitaria ciliaris*	*Mononegavirales*	*Rhabdoviridae*	*Digitaria striate virus*	Hand collection	JT-242; chlorosis stripes; identified by electron microscopy
-29.02	167.96	19/02/2014	Alliaceae	*Allium ampeloprasum* L. var. *ampeloprasum*	*Tymovirales*	*Alphaflexiviridae*	*Garlic virus B*	Hand collection	FebAG-4; Chlorotic. Identified by PCR
-29.03	167.93	12/06/2013	Malvaceae	*Hibiscus* L.	Unassigned	*Tombusviridae*	*Hibiscus chlorotic ringspot virus*	Hand collection	JT-6; identified by PCR and sequencing
-29.03	167.93	11/10/2013	Alliaceae	*Allium ampeloprasum* var. *ampeloprasum*	Unassigned	*Potyviridae*	*Leek yellow stripe virus*	Hand collection	JT-151; identified by PCR and sequencing
-29.04	167.99	14/06/2013	Amaryllidaceae	*Hippeastrum* Herb.	Unassigned	*Potyviridae*	*Narcissus degeneration virus*	Hand collection	NIBS-130; identified by PCR and sequencing
-29.03	167.96	12/06/2013	Amaryllidaceae	*Narcissus jonquilla* L.	Unassigned	*Potyviridae*	*Narcissus degeneration virus*	Hand collection	Mosaic; identified by PCR and sequencing
-29.04	167.96	10/10/2013	Orchidaceae	*Cattleya* 'Dancing Lady'	Unassigned	*Virgaviridae*	*Odontoglossum ringspot virus*	Hand collection	JT-114; necrotic rings; identified by serology (immunostrip)
-29.04	167.96	10/10/2013	Orchidaceae	*Phalaenopsis* sp.	Unassigned	*Virgaviridae*	*Odontoglossum ringspot virus*	Hand collection	OctAG-7; black necrotic spots on flowers; identified by serology (immunostrip)
-29.05	167.93	18/11/2014	Fabaceae	*Pisum sativum* var. *macrocarpum* Ser.	Unassigned	*Potyviridae*	*Pea seed-borne mosaic virus*	Hand collection	JT546; mottle; identified by PCR and sequencing
-29.03	167.93	12/06/2013	Solanaceae	*Solanum tuberosum*	Unassigned	*Luteoviridae*	*Potato leaf roll virus*	Hand collection	JT-32; identified by PCR and sequencing
-29.03	167.93	12/06/2013	Solanaceae	*Solanum tuberosum*	Unassigned	*Luteoviridae*	*Potato leaf roll virus*	Hand collection	JT-5; identified by PCR and sequencing
-29.04	167.96	13/11/2014	Solanaceae	*Capsicum annuum*	Unassigned	*Potyviridae*	*Potato virus Y*	Hand collection	JT514; chlorotic mosaic; identified by PCR and sequencing

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Collection method	Notes
-29.04	167.96	13/11/2014	Solanaceae	*Capsicum annuum*	Unassigned	*Potyviridae*	*Potato virus Y*	Hand collection	JT515; green vein banding; identified by PCR and sequencing
-29.03	167.95	17/06/2013	Fabaceae	*Desmodium tortuosum* (Sw.) DC.	Unassigned	*Potyviridae*	*Potato virus Y*	Hand collection	JT-33; vein chlorosis; identified by PCR and sequencing
-29.03	167.99	17/06/2013	Solanaceae	*Nicandra physalodes*	Unassigned	*Potyviridae*	*Potato virus Y*	Hand collection	JT-35; yellow mosaic; identified by PCR and sequencing
-29.00	167.93	14/10/2013	Solanaceae	*Nicotiana tabacum*	Unassigned	*Potyviridae*	*Potato virus Y*	Hand collection	JT-181; mosaic; identified by PCR and sequencing
-29.01	167.93	13/06/2013	Solanaceae	*Solanum lycopersicum*	Unassigned	*Potyviridae*	*Potato virus Y*	Hand collection	NIBS-106; identified by PCR and sequencing
-29.05	167.93	13/06/2013	Solanaceae	*Solanum tuberosum*	*Unassigned*	*Potyviridae*	*Potato virus Y*	Hand collection	JT-27; interveinal chlorosis; identified by PCR and sequencing
-29.03	167.93	12/06/2013	Solanaceae	*Solanum tuberosum*	Unassigned	*Potyviridae*	*Potato virus Y*	Hand collection	JT-3; PLRV; identified by PCR and sequencing
-29.03	167.99	17/06/2013	Solanaceae	*Solanum tuberosum*	Unassigned	*Potyviridae*	*Potato virus Y*	Hand collection	JT-36; Mottle; identified by PCR and sequencing
-29.02	167.96	19/02/2014	Alliaceae	*Allium ampeloprasum* var. *ampeloprasum*	Unassigned	*Potyviridae*	*Potyvirus*	Hand collection	FebAG-4; chlorotic; identified by PCR
-29.03	167.95	17/06/2013	Apocynaceae	*Catharanthus roseus* (L.) G.Don	Unassigned	*Potyviridae*	*Potyvirus*	Hand collection	JT-38; mosaic; identified by PCR
-29.00	167.93	12/06/2013	Apiaceae	*Coriandrum sativum*	Unassigned	*Potyviridae*	*Potyvirus*	Hand collection	JT11; mosaic; identified by PCR
-29.05	167.94	14/11/2014	Fabaceae	*Pisum sativum* var. *macrocarpum* Ser.	Unassigned	*Potyviridae*	*Potyvirus*	Hand collection	AGNov14-23; vein clearing; photo 4515; identified by PCR
-29.03	167.99	14/06/2013	Polygonaceae	*Rheum ×rhabarbarum* L.	Unassigned	*Potyviridae*	*Potyvirus*	Hand collection	JT40; identified by EM, PCR and sequencing

Latitude	Longitude	Date	Host family	Host species	Target order	Target family	Target species	Collection method	Notes
-29.05	167.93	13/06/2013	Solanaceae	*Datura stramonium*	Unassigned	*Geminiviridae*	*Tobacco yellow dwarf virus*	Hand collection	JT-21; mosaic; identified by PCR and sequencing
-29.05	167.93	13/06/2013	Solanaceae	*Datura stramonium*	Unassigned	*Geminiviridae*	*Tobacco yellow dwarf virus*	Hand collection	JT-25; interveinal chlorosis; identified by PCR and sequencing
-29.05	167.93	13/06/2013	Solanaceae	*Datura stramonium*	Unassigned	*Geminiviridae*	*Tobacco yellow dwarf virus*	Hand collection	JT-26; interveinal chlorosis; identified by PCR and sequencing
-29.03	167.99	14/06/2013	Fabaceae	*Phaseolus vulgaris*	Unassigned	*Geminiviridae*	*Tobacco yellow dwarf virus*	Hand collection	JT-30; mosaic; identified by PCR and sequencing
-29.05	167.93	13/06/2013	Solanaceae	*Solanum mauritianum* Scop.	Unassigned	*Geminiviridae*	*Tobacco yellow dwarf virus*	Hand collection	JT-28; identified by PCR and sequencing
-29.00	167.93	16/11/2015	Solanaceae	*Solanum nodiflorum*	Unassigned	*Virgaviridae*	*Tomato mosaic virus*	Hand collection	AGNov14-1; mottle;. identified by PCR, serology (immunostrip); isolate Q6276
-29.02	167.96	19/02/2014	Alliaceae	*Allium ampeloprasum* var. *ampeloprasum*	*Tymovirales*	*Betaflexiviridae*	Unknown	Hand collection	FebAG-4; chlorotic; identified by PCR
-29.03	167.93	19/11/2014	Solanaceae	*Solanum lycopersicum*	Unassigned	*Closteroviridae*	Unknown	Hand collection	Identified by PCR
-29.04	167.96	12/10/2013	Asparagaceae	*Ornithogalum thyrsoides* Jacq.	Unassigned	*Potyviridae*	*Veltkemia mosaic virus*	Hand collection	JT-164; mosaic; identified by PCR and sequencing
-29.04	167.94	12/06/2013	Fabaceae	*Trifolium repens* var. *repens*	*Tymovirales*	*Alphaflexiviridae*	*White clover mosaic virus*	Hand collection	Identified by PCR and sequencing
-29.02	167.94	13/10/2013	Fabaceae	*Trifolium repens* var. *repens*	*Tymovirales*	*Alphaflexiviridae*	*White clover mosaic virus*	Hand collection	OctAG-18; symptomless; identified by PCR and sequencing
-29.00	167.93	12/06/2013	Brassicaceae	*Brassica oleracea* L.	*Xanthomonadales*	*Xanthomonadaceae*	*Xanthomonas* Dowson	Hand collection	NIQS-DRB-16; dried specimen
-29.03	167.98	27/05/2014	Brassicaceae	*Brassica oleracea*	*Xanthomonadales*	*Xanthomonadaceae*	*Xanthomonas* sp.	Hand collection	NIQS-RGS.4.42; dried specimen
-29.03	167.98	27/05/2014	Brassicaceae	*Brassica oleracea*	*Xanthomonadales*	*Xanthomonadaceae*	*Xanthomonas* sp.	Hand collection	NIQS-RGS.4.42; dried specimen
-29.03	167.98	14/06/2013	Solanaceae	*Solanum lycopersicum*	*Xanthomonadales*	*Xanthomonadaceae*	*Xanthomonas* sp.	Hand collection	NIQS-DRB-54; dried specimen

Table 6. Norfolk Island Quarantine Survey - fungal plant pathogens

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.03	167.94	28/05/2014	Malvaceae	*Abutilon grandifolium* (Willd.) Sweet	Glomerellaceae	*Colletotrichum fioriniae*	Hand collection	BRIP 61255 a
-29.00	167.93	30/09/2013	Malvaceae	*Abutilon grandifolium*	Diaporthaceae	*Diaporthe leucospermi*	Hand collection	BRIP 60162 a
-29.02	167.96	2/10/2013	Fabaceae	*Acacia podalyrifolia* A.Cunn. ex G.Don	Ravenelliaceae	*Endoraecium* sp.	Hand collection	BRIP 59999 a
-29.04	167.94	4/10/2013	Euphorbiaceae	*Acalypha wilkesiana* Müll.Arg.	Erysiphaceae	*Erysiphe acalyphae*	Hand collection	BRIP 60226 a
-29.03	167.93	19/02/2014	Myrtaceae	*Acca selloviana* (O.Berg.) Burret	Amphisphaeriaceae	*Pestalotiopsis* sp.	Hand collection	BRIP 60359 a
-29.12	167.96	15/10/2014	Amaranthaceae	*Achyranthes aspera* L.	Mycosphaerellaceae	*Cercospora* sp.	Hand collection	BRIP 61703 a
-29.03	167.93	16/02/2014	Actinidiaceae	*Actinidia chinesis* Planch.	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 60295 a
-29.03	167.93	16/02/2014	Actinidiaceae	*Actinidia chinesis*	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 60295 b
-29.04	167.96	17/06/2013	Agapanthaceae	*Agapanthus praecox* Willd.	Glomerellaceae	*Colletotrichum cordylinicola*	Hand collection	BRIP 59362 c
-29.04	167.96	17/06/2013	Agapanthaceae	*Agapanthus praecox*	Amphisphaeriaceae	*Pestalotiopsis* sp.	Hand collection	BRIP 59362 a
-29.04	167.96	17/06/2013	Agapanthaceae	*Agapanthus praecox*	Incertae sedis	*Phoma pedeiae*	Hand collection	BRIP 59362 b
-29.00	167.93	30/09/2013	Agavaceae	*Agave* L.	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 59697 a
-29.04	167.96	4/10/2013	Asteraceae	*Ageratina riparia* (Regel) R.M.King & H.Rob.	Mycosphaerellaceae	*Mycosphaerella* sp.	Hand collection	BRIP 60165 a
-29.03	167.93	19/02/2014	Alliaceae	*Allium ampeloprasum* L.	Erysiphaceae	*Leveillula allii*	Hand collection	BRIP 61046 a
-29.01	167.93	12/10/2014	Alliaceae	*Allium cepa* L.	Pleosporaceae	*Stemphylium* sp.	Hand collection	BRIP 61713 a
-29.04	167.92	18/02/2014	Alliaceae	*Allium fistulosum* L.	Pleosporaceae	*Alternaria alternata*	Hand collection	BRIP 60315 a
-29.03	167.93	2/10/2013	Amaranthaceae	*Amaranthus blitum* L.	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 60163 a
-29.03	167.93	2/10/2013	Amaranthaceae	*Amaranthus blitum*	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 60163 d
-29.03	167.93	2/10/2013	Amaranthaceae	*Amaranthus blitum*	Nectriaceae	*Fusarium incarnatum*	Hand collection	BRIP 60163 c
-29.03	167.93	2/10/2013	Amaranthaceae	*Amaranthus blitum*	Plectosphaerellaceae	*Verticillium dahliae*	Hand collection	BRIP 60163 b

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.04	167.99	18/02/2014	Apiaceae	*Anethum graveolens* L.	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 60308 a
-29.04	167.96	19/02/2014	Haemodoraceae	*Anigozanthos* Labill.	Pleosporaceae	*Alternaria* sp.	Hand collection	BRIP 60312 a
-29.04	167.96	19/02/2014	Haemodoraceae	*Anigozanthos* sp.	Glomerellaceae	*Colletotrichum queenslandicum*	Hand collection	BRIP 60312 b
-29.04	167.96	18/02/2014	Poaceae	*Anthosachne* Steud.	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60337 a
-29.03	167.93	12/06/2013	Apiaceae	*Apium graveolens* var. *dulce* (Mill.) DC.	Mycosphaerellaceae	*Septoria apiicola*	Hand collection	BRIP 59661 a
-29.00	167.93	12/06/2013	Apiaceae	*Apium graveolens* var. *dulce*	Mycosphaerellaceae	*Septoria apiicola*	Hand collection	BRIP 59662 a
-29.06	167.94	4/10/2013	Araucariaceae	*Araucaria heterophylla* (Salisb.) Franco	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 59713 a
-29.02	167.96	30/05/2014	Araucariaceae	*Araucaria heterophylla*	Hymenochaetaceae	*Phellinus noxius*	Hand collection	BRIP 61423 a
-29.02	167.96	30/05/2014	Araucariaceae	*Araucaria heterophylla*	Hymenochaetaceae	*Phellinus noxius*	Hand collection	BRIP 61424 a
-29.02	167.96	30/05/2014	Araucariaceae	*Araucaria heterophylla*	Hymenochaetaceae	*Phellinus noxius*	Hand collection	BRIP 61424 b
-29.02	167.96	30/05/2014	Araucariaceae	*Araucaria heterophylla*	Polyporaceae	*Pycnoporus* sp.	Hand collection	BRIP 61262 a
-29.01	167.95	16/06/2013	Araucariaceae	*Araucaria heterophylla*	Plectosphaerellaceae	*Verticillium* sp.	Hand collection	BRIP 59383 a
-29.04	167.98	18/02/2014	Asteraceae	*Argyranthemum* Webb ex Sch. Bip.	Erysiphaceae	*Golovinomyces macrocarpus*	Hand collection	BRIP 61031 a
-29.02	167.96	2/10/2013	Moraceae	*Artocarpus heterophyllus* Lam.	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 59708 a
-29.04	167.99	1/10/2013	Asparagaceae	*Asparagus officinalis* L.	Diaporthaceae	*Diaporthe leucospermi*	Hand collection	BRIP 59695 a
-29.05	167.97	13/06/2013	Aspleniaceae	*Asplenium australasicum* (J.Sm.) Hook.	Amphisphaeriaceae	*Pestalotiopsis* sp.	Hand collection	BRIP 59360 a
-29.05	167.97	13/06/2013	Aspleniaceae	*Asplenium dimorphum* Kunze	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 59377 a
-29.01	167.94	25/05/2014	Euphorbiaceae	*Balogbia inophylla* (G.Forst.) P.S.Green	Glomerellaceae	*Colletotrichum boninense*	Hand collection	BRIP 61248 a
-29.03	167.94	28/05/2014	Euphorbiaceae	*Balogbia inophylla*	Hymenochaetaceae	*Phellinus noxius*	Hand collection	BRIP 61419 a
-29.03	167.94	16/06/2013	Euphorbiaceae	*Balogbia inophylla*	Incertae sedis	*Phoma* sp.	Hand collection	BRIP 59385 a
-29.01	167.92	12/10/2014	Poaceae	Bamboo (unidentified)	Apiosporaceae	*Arthrinium* sp.	Hand collection	BRIP 61694 b

Lat.itude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.01	167.92	12/10/2014	Poaceae	Bamboo (unidentified)	Incertae sedis	*Microdochium* sp.	Hand collection	BRIP 61694 a
-29.04	167.99	1/10/2013	Begoniaceae	*Begonia* L.	Glomerellaceae	*Colletotrichum novae-zelandiae*	Hand collection	BRIP 59717 a
-29.05	167.97	21/02/2014	Chenopodiaceae	*Beta vulgaris* var. *cicla* L.	Mycosphaerellaceae	*Cercospora beticola*	Hand collection	BRIP 60347 a
-29.02	167.96	19/02/2014	Chenopodiaceae	*Beta vulgaris* var. *cicla*	Mycosphaerellaceae	*Cercospora beticola*	Hand collection	BRIP 60343 a
-29.02	167.96	17/12/2014	Chenopodiaceae	*Beta vulgaris* var. *cicla*	Mycosphaerellaceae	*Cercospora beticola*	Hand collection	BRIP 61925 a
-29.00	167.93	30/09/2013	Chenopodiaceae	*Beta vulgaris* var. *cicla*	Pleosporaceae	*Stemphylium* sp.	Hand collection	BRIP 59694 a
-29.00	167.93	15/12/2014	Chenopodiaceae	*Beta vulgaris* L. var. *vulgaris*	Mycosphaerellaceae	*Cercospora beticola*	Hand collection	BRIP 61917 a
-29.06	167.94	29/09/2013	Asteraceae	*Bidens pilosa* L.	Diaporthaceae	*Diaporthe endophytica*	Hand collection	BRIP 60079 a
-29.06	167.94	29/09/2013	Asteraceae	*Bidens pilosa*	Diaporthaceae	*Diaporthe endophytica*	Hand collection	BRIP 60079 b
-29.03	167.93	2/10/2013	Asteraceae	*Bidens pilosa*	Entylomataceae	*Entyloma bidentis*	Hand collection	BRIP 60217 a
-29.02	167.94	25/05/2014	Asteraceae	*Bidens pilosa*	Entylomataceae	*Entyloma bidentis*	Hand collection	BRIP 61218 a
-29.12	167.95	14/10/2014	Asteraceae	*Bidens pilosa*	Pucciniaceae	*Uromyces bidenticola*	Hand collection	BRIP 61743 a
-29.03	167.93	12/06/2013	Asteraceae	*Bidens pilosa*	Pucciniaceae	*Uromyces bidenticola*	Hand collection	BRIP 59560 a
-29.03	167.98	14/06/2013	Asteraceae	*Bidens pilosa*	Pucciniaceae	*Uromyces bidenticola*	Hand collection	BRIP 59579 a
-29.03	167.93	2/10/2013	Asteraceae	*Bidens pilosa*	Pucciniaceae	*Uromyces bidenticola*	Hand collection	BRIP 60217 b
-29.12	167.95	14/10/2014	Poaceae	*Bothriochloa macra* (Steud.) S.T.Blake	Incertae sedis	*Peyronellaea* sp.	Hand collection	BRIP 61699 a
-29.12	167.95	14/10/2014	Poaceae	*Bothriochloa macra*	Pucciniaceae	*Puccinia kenmorensis*	Hand collection	BRIP 61718 b
-29.01	167.95	19/02/2014	Poaceae	*Bothriochloa macra*	Pucciniaceae	*Puccinia kenmorensis*	Hand collection	BRIP 61048 a
-29.00	167.95	4/10/2013	Poaceae	*Bothriochloa macra*	Pucciniaceae	*Puccinia kenmorensis*	Hand collection	BRIP 60011 a
-29.02	167.96	19/02/2014	Brassicaceae	*Brassica oleracea* L.	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60342 a
-29.04	167.93	18/02/2014	Brassicaceae	*Brassica oleracea* var. *italica* Plenck	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60339 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.03	167.99	1/10/2013	Brassicaceae	*Brassica oleracea* var. *italica*	Sclerotiniaceae	*Sclerotinia sclerotiorum*	Hand collection	BRIP 59701 a
-29.00	167.93	29/05/2014	Brassicaceae	*Brassica rapa* L. var. *rapa*	Erysiphaceae	*Erysiphe cruciferarum*	Hand collection	BRIP 61244 a
-29.05	167.92	12/10/2014	Poaceae	*Bromus catharticus* Vahl	Pleosporaceae	*Bipolaris sorokiniana*	Hand collection	BRIP 61715 a
-29.00	167.94	30/09/2013	Fabaceae	*Canavalia rosea* (Sw.) DC.	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 59700 a
-29.06	167.96	16/12/2014	Cannaceae	*Canna* L.	Pucciniaceae	*Puccinia thaliae*	Hand collection	BRIP 61943 a
-29.06	167.96	18/12/2014	Cannaceae	*Canna* sp.	Pucciniaceae	*Puccinia thaliae*	Hand collection	BRIP 61948 a
-29.03	167.93	28/05/2014	Cannaceae	*Canna* sp.	Pucciniaceae	*Puccinia thaliae*	Hand collection	BRIP 61236 a
-29.00	167.93	12/06/2013	Cannaceae	*Canna* sp.	Pucciniaceae	*Puccinia thaliae*	Hand collection	BRIP 59567 a
-29.03	167.98	14/06/2013	Solanaceae	*Capsicum annuum* L.	Glomerellaceae	*Colletotrichum theobromicola*	Hand collection	BRIP 59327 a
-29.03	167.98	14/06/2013	Solanaceae	*Capsicum annuum*	Erysiphaceae	*Leveillula taurica*	Hand collection	BRIP 59327 b
-29.05	167.98	3/10/2013	Asteraceae	*Carduus tenuiflorus* Curtis	Pucciniaceae	*Puccinia cnici*	Hand collection	BRIP 60030 a
-29.05	167.92	1/10/2013	Cyperaceae	*Carex neesiana* Endl.	Pucciniaceae	*Puccinia* sp.	Hand collection	BRIP 60024 a
-29.02	167.96	30/05/2014	Caricaceae	*Carica papaya* L.	Pleosporaceae	*Alternaria* sp.	Hand collection	BRIP 61263 b
-29.01	167.93	16/10/2014	Caricaceae	*Carica papaya*	Pleosporaceae	*Alternaria* sp.	Hand collection	BRIP 61722 a
-29.04	167.96	16/12/2014	Caricaceae	*Carica papaya*	Mycosphaerellaceae	*Asperisporium caricae*	Hand collection	BRIP 61922 a
-29.03	167.96	12/06/2013	Caricaceae	*Carica papaya*	Mycosphaerellaceae	*Asperisporium caricae*	Hand collection	BRIP 59367 a
-29.01	167.93	13/06/2013	Caricaceae	*Carica papaya*	Mycosphaerellaceae	*Asperisporium caricae*	Hand collection	BRIP 59369 a
-29.02	167.96	30/05/2014	Caricaceae	*Carica papaya*	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 61263 a
-29.02	167.96	30/05/2014	Caricaceae	*Carica papaya*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61263 d
-29.02	167.96	30/05/2014	Caricaceae	*Carica papaya*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61263 e
-29.02	167.96	30/05/2014	Caricaceae	*Carica papaya*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61263 f

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.02	167.96	30/05/2014	Caricaceae	*Carica papaya*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61263 g
-29.02	167.96	30/05/2014	Caricaceae	*Carica papaya*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61263 h
-29.02	167.96	30/05/2014	Caricaceae	*Carica papaya*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61263 i
-29.02	167.96	30/05/2014	Caricaceae	*Carica papaya*	Nectriaceae	*Fusarium* sp.	Hand collection	BRIP 61263 c
-29.00	167.93	30/09/2013	Caricaceae	*Carica papaya*	Erysiphaceae	*Podosphaera xanthii*	Hand collection	BRIP 60203 a
-29.04	167.96	16/12/2014	Caricaceae	*Carica papaya*	Incertae sedis	*Stagonosporopsis cucurbitacearum*	Hand collection	BRIP 61922 b
-29.05	167.92	1/10/2013	Aizoaceae	*Carpobrotus glaucescens* (Haw.) Schwantes	Albuginaceae	*Albugo trianthemae*	Hand collection	BRIP 59998 a
-29.04	167.99	14/06/2013	Juglandaceae	*Carya illinoinensis* (Wangenh.) K.Koch	Trichocomaceae	*Penicillium* sp.	Hand collection	BRIP 59365 a
-29.05	167.92	12/10/2014	Ulmaceae	*Celtis paniculata* (Endl.) Planch.	Erysiphaceae	*Erysiphe* sp.	Hand collection	BRIP 61734 a
-29.05	167.95	19/12/2014	Poaceae	*Cenchrus clandestinus* (Hochst. ex Chiov.) Morrone	Pleosporaceae	*Bipolaris zeae*	Hand collection	BRIP 61927 b
-29.05	167.95	19/12/2014	Poaceae	*Cenchrus clandestinus*	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 61927 c
-29.05	167.95	19/12/2014	Poaceae	*Cenchrus clandestinus*	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 61927 d
-29.03	167.99	14/06/2013	Poaceae	*Cenchrus clandestinus*	Phakopsoraceae	*Phakopsora apoda*	Hand collection	BRIP 59575 a
-29.03	167.99	17/06/2013	Poaceae	*Cenchrus clandestinus*	Phakopsoraceae	*Phakopsora apoda*	Hand collection	BRIP 59583 a
-29.05	167.95	19/12/2014	Poaceae	*Cenchrus clandestinus*	Incertae sedis	*Phoma* sp.	Hand collection	BRIP 61927 a
-29.06	167.94	29/09/2013	Poaceae	*Cenchrus clandestinus*	Pucciniaceae	*Puccinia oahuensis*	Hand collection	BRIP 60227 a
-29.00	167.93	25/05/2014	Poaceae	*Cenchrus clandestinus*	Pucciniaceae	*Puccinia oahuensis*	Hand collection	BRIP 61222 a
-29.01	167.93	17/02/2014	Poaceae	*Cenchrus purpurascens* Thunb.	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60336 b
-29.01	167.93	29/09/2013	Poaceae	*Cenchrus purpurascens*	Nectriaceae	*Fusarium* sp.	Hand collection	BRIP 59691 a
-29.03	167.93	12/06/2013	Poaceae	*Cenchrus purpurascens*	Pucciniaceae	*Puccinia substriata*	Hand collection	BRIP 59561 a
-29.05	167.97	13/06/2013	Poaceae	*Cenchrus purpurascens*	Magnaporthaceae	*Pyricularia* sp.	Hand collection	BRIP 59379 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.03	167.93	28/05/2014	Poaceae	*Cenchrus purpurascens*	Magnaporthaceae	*Pyricularia* sp.	Hand collection	BRIP 61254 a
-29.01	167.93	17/02/2014	Poaceae	*Cenchrus purpurascens*	Incertae sedis	*Stagonosporopsis* sp.	Hand collection	BRIP 60336 a
-29.04	167.96	19/02/2014	Myrtaceae	*Chamelaucium uncinatum* Schauer	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 60303 b
-29.04	167.96	19/02/2014	Myrtaceae	*Chamelaucium uncinatum*	Botryosphaeriaceae	*Neofusicoccum parvum*	Hand collection	BRIP 60303 a
-29.03	167.98	14/06/2013	Chenopodiaceae	*Chenopodium album* L.	Mycosphaerellaceae	*Cercospora pseudochenopodii*	Hand collection	BRIP 59580 a
-29.03	167.98	27/05/2014	Chenopodiaceae	*Chenopodium album*	Mycosphaerellaceae	*Cercospora pseudochenopodii*	Hand collection	BRIP 61350 a
-29.00	167.93	15/12/2014	Chenopodiaceae	*Chenopodium album*	Mycosphaerellaceae	*Cercospora pseudochenopodii*	Hand collection	BRIP 61916 a
-29.04	167.96	19/02/2014	Poaceae	*Chloris gayana* Kunth	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60344 a
-29.04	167.96	14/10/2013	Asteraceae	*Chrysanthemum ×morifolium* Ramat.	Pucciniaceae	*Puccinia chrysanthemi*	Hand collection	BRIP 60235 a
-29.04	167.96	19/02/2014	Asteraceae	*Chrysanthemum ×morifolium* Ramat.	Pucciniaceae	*Puccinia chrysanthemi*	Hand collection	BRIP 61034 a
-29.03	167.96	4/10/2013	Asteraceae	*Cirsium vulgare* (Savi) Ten.	Diaporthaceae	*Diaporthe endophytica*	Hand collection	BRIP 60087 a
-29.03	167.96	4/10/2013	Asteraceae	*Cirsium vulgare*	Diaporthaceae	*Diaporthe endophytica*	Hand collection	BRIP 60087 c
-29.03	167.96	4/10/2013	Asteraceae	*Cirsium vulgare*	Diaporthaceae	*Diaporthe endophytica*	Hand collection	BRIP 60087 d
-29.03	167.96	4/10/2013	Asteraceae	*Cirsium vulgare*	Diaporthaceae	*Diaporthe leucospermi*	Hand collection	BRIP 60087 b
-29.02	167.93	26/05/2014	Rutaceae	*Citrus ×jambhiri* Lush.	Pleosporaceae	*Alternaria* sp.	Hand collection	BRIP 61251 a
-29.03	167.94	27/05/2014	Rutaceae	*Citrus ×jambhiri*	Elsinoaceae	*Elsinoë fawcettii*	Hand collection	BRIP 61461 a
-29.02	167.93	26/05/2014	Rutaceae	*Citrus ×jambhiri*	Elsinoaceae	*Elsinoë fawcettii*	Hand collection	BRIP 61251 b
-29.01	167.94	25/05/2014	Rutaceae	*Citrus ×jambhiri*	Elsinoaceae	*Elsinoë fawcettii*	Hand collection	BRIP 61460 a
-29.06	167.94	29/09/2013	Rutaceae	*Citrus ×limon* (L.) Osbeck	Pleosporaceae	*Alternaria dauciifolii*	Hand collection	BRIP 59802 a
-29.03	167.94	16/06/2013	Rutaceae	*Citrus ×limon*	Glomerellaceae	*Colletotrichum gloeosporioides*	Hand collection	BRIP 59380 a
-29.00	167.93	29/05/2014	Rutaceae	*Citrus ×sinensis* (L.) Osbeck	Incertae sedis	*Monosporascus* sp.	Hand collection	BRIP 61414 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.00	167.93	12/06/2013	Rutaceae	*Citrus ×sinensis*	Trichocomaceae	*Penicillium digitatum*	Hand collection	BRIP 59364 a
-29.04	167.93	18/02/2014	Rutaceae	*Citrus* L.	Pleosporaceae	*Alternaria* sp.	Hand collection	BRIP 60316 a
-29.02	167.96	2/10/2013	Rutaceae	*Citrus* sp.	Diaporthaceae	*Diaporthe citri*	Hand collection	BRIP 60085 a
-29.03	167.98	16/10/2014	Rutaceae	*Citrus* sp.	Elsinoaceae	*Elsinoë fawcettii*	Hand collection	BRIP 61750 a
-29.01	167.93	12/10/2014	Rutaceae	*Citrus* sp.	Elsinoaceae	*Elsinoë fawcettii*	Hand collection	BRIP 61754 a
-29.01	167.93	13/06/2013	Rubiaceae	*Coffea arabica* L.	Mycosphaerellaceae	*Cercospora coffeicola*	Hand collection	BRIP 59568 a
-29.01	167.93	29/09/2013	Rubiaceae	*Coffea arabica*	Mycosphaerellaceae	*Cercospora coffeicola*	Hand collection	BRIP 59690 a
-29.01	167.93	29/09/2013	Rubiaceae	*Coffea arabica*	Mycosphaerellaceae	*Cercospora coffeicola*	Hand collection	BRIP 59795 c
-29.01	167.93	29/05/2014	Rubiaceae	*Coffea arabica*	Mycosphaerellaceae	*Cercospora coffeicola*	Hand collection	BRIP 61256 a
-29.01	167.93	16/10/2014	Rubiaceae	*Coffea arabica*	Mycosphaerellaceae	*Cercospora coffeicola*	Hand collection	BRIP 61721 a
-29.01	167.93	16/10/2014	Rubiaceae	*Coffea arabica*	Mycosphaerellaceae	*Cercospora coffeicola*	Hand collection	BRIP 61721 f
-29.01	167.93	29/05/2014	Rubiaceae	*Coffea arabica*	Glomerellaceae	*Colletotrichum aotearoa*	Hand collection	BRIP 61256 b
-29.01	167.93	17/02/2014	Rubiaceae	*Coffea arabica*	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 60307 a
-29.01	167.93	29/09/2013	Rubiaceae	*Coffea arabica*	Glomerellaceae	*Colletotrichum theobromicola*	Hand collection	BRIP 59795 b
-29.01	167.93	29/05/2014	Rubiaceae	*Coffea arabica*	Glomerellaceae	*Colletotrichum theobromicola*	Hand collection	BRIP 61256 c
-29.01	167.93	29/05/2014	Rubiaceae	*Coffea arabica*	Glomerellaceae	*Colletotrichum theobromicola*	Hand collection	BRIP 61256 d
-29.01	167.93	16/10/2014	Rubiaceae	*Coffea arabica*	Glomerellaceae	*Colletotrichum theobromicola*	Hand collection	BRIP 61721 b
-29.01	167.93	16/10/2014	Rubiaceae	*Coffea arabica*	Glomerellaceae	*Colletotrichum theobromicola*	Hand collection	BRIP 61721 e
-29.01	167.93	29/09/2013	Rubiaceae	*Coffea arabica*	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 59795 a
-29.01	167.93	16/10/2014	Rubiaceae	*Coffea arabica*	Incertae sedis	*Phoma* sp.	Hand collection	BRIP 61721 c
-29.01	167.93	16/10/2014	Rubiaceae	*Coffea arabica*	Incertae sedis	*Phoma* sp.	Hand collection	BRIP 61721 d

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.03	167.97	16/10/2014	Rubiaceae	*Coffea canephora* Pierre ex A.Froehner	Glomerellaceae	*Colletotrichum karsti*	Hand collection	BRIP 61707 a
-29.03	167.97	16/10/2014	Rubiaceae	*Coffea canephora*	Glomerellaceae	*Colletotrichum simmondsii*	Hand collection	BRIP 61707 b
-29.04	167.94	26/05/2014	Rubiaceae	*Coffea canephora*	Incertae sedis	*Hemileia vastatrix*	Hand collection	BRIP 61233 a
-29.03	167.93	28/05/2014	Rubiaceae	*Coffea canephora*	Incertae sedis	*Hemileia vastatrix*	Hand collection	BRIP 61235 a
-29.12	167.95	14/10/2014	Commelinaceae	*Commelina cyanea* R.Br.	Phakopsoraceae	*Phakopsora tecta*	Hand collection	BRIP 61742 a
-29.06	167.94	29/09/2013	Commelinaceae	*Commelina cyanea*	Phakopsoraceae	*Phakopsora tecta*	Hand collection	BRIP 60005 a
-29.05	167.92	12/10/2014	Commelinaceae	*Commelina cyanea*	Incertae sedis	*Phoma* sp.	Hand collection	BRIP 61714 a
-29.01	167.93	17/02/2014	Asteraceae	*Conyza* Less.	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60335 a
-29.13	167.95	14/10/2014	Rubiaceae	*Coprosma baueri* Endl.	Davidiellaceae	*Cladosporium* sp.	Hand collection	BRIP 61698 b
-29.13	167.95	14/10/2014	Rubiaceae	*Coprosma baueri*	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 61698 a
-29.03	167.93	2/10/2013	Rubiaceae	*Coprosma* J.R.Forst. & G.Forst.	Glomerellaceae	*Colletotrichum siamense*	Hand collection	BRIP 59707 a
-29.03	167.93	19/02/2014	Rubiaceae	*Coprosma* sp.	Phyllachoraceae	*Phyllachora* sp.	Hand collection	BRIP 61055 a
-29.04	167.94	16/06/2013	Rubiaceae	*Coprosma* sp.	Mycosphaerellaceae	*Pseudocercospora coprosmae*	Hand collection	BRIP 59666 a
-29.03	167.94	16/06/2013	Asparagaceae	*Cordyline obtecta* (Graham) Baker	Glomerellaceae	*Colletotrichum ti*	Hand collection	BRIP 59384 a
-29.03	167.94	16/06/2013	Asparagaceae	*Cordyline obtecta*	Nectriaceae	*Fusarium* sp.	Hand collection	BRIP 59384 b
-29.06	167.96	18/12/2014	Cucurbitaceae	*Cucumis melo* L.	Erysiphaceae	*Podosphaera xanthii*	Hand collection	BRIP 61947 a
-29.04	167.93	18/02/2014	Cucurbitaceae	*Cucumis sativus* L.	Erysiphaceae	*Podosphaera xanthii*	Hand collection	BRIP 61043 a
-29.03	167.93	12/06/2013	Cucurbitaceae	*Cucumis sativus*	Erysiphaceae	*Podosphaera xanthii*	Hand collection	BRIP 59563 a
-29.03	167.99	14/06/2013	Cucurbitaceae	*Cucumis sativus*	Erysiphaceae	*Podosphaera xanthii*	Hand collection	BRIP 59570 a
-29.02	167.96	19/02/2014	Cucurbitaceae	*Cucurbita maxima* Lam.	Erysiphaceae	*Podosphaera xanthii*	Hand collection	BRIP 61047 a
-29.01	167.93	30/09/2013	Cucurbitaceae	*Cucurbita maxima*	Erysiphaceae	*Podosphaera xanthii*	Hand collection	BRIP 60016 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.03	167.98	14/06/2013	Cucurbitaceae	*Cucurbita pepo* L.	Erysiphaceae	*Podosphaera xanthii*	Hand collection	BRIP 59576 a
-29.01	167.93	30/09/2013	Cucurbitaceae	*Cucurbita pepo*	Erysiphaceae	*Podosphaera xanthii*	Hand collection	BRIP 60007 a
-29.03	167.97	17/10/2014	Cyatheaceae	*Cyathea australis* subsp. *norfolkensis* Holttum	Mycosphaerellaceae	*Pseudocercospora* sp.	Hand collection	BRIP 61710 a
-29.03	167.95	17/10/2014	Cyatheaceae	*Cyathea brownii* Domin	Mycosphaerellaceae	*Pseudocercospora* sp.	Hand collection	BRIP 61711 a
-29.04	167.99	17/02/2014	Poaceae	*Cymbopogon citratus* (DC.) Stapf	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60334 a
-29.04	167.92	29/09/2013	Poaceae	*Cynodon dactylon* (L.) Pers.	Ustilaginaceae	*Ustilago cynodontis*	Hand collection	BRIP 60014 a
-29.02	167.97	3/10/2013	Poaceae	*Cynodon dactylon*	Ustilaginaceae	*Ustilago cynodontis*	Hand collection	BRIP 60032 a
-29.12	167.96	15/10/2014	Cyperaceae	*Cyperus lucidus* R.Br.	Incertae sedis	*Phoma* sp.	Hand collection	BRIP 61704 a
-29.12	167.95	14/10/2014	Cyperaceae	*Cyperus lucidus*	Phaeosphaeriaceae	*Stagonospora* sp.	Hand collection	BRIP 61697 a
-29.04	167.99	18/02/2014	Cyperaceae	*Cyperus rotundus* L.	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60338 a
-29.04	167.99	18/02/2014	Cyperaceae	*Cyperus rotundus*	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60338 b
-29.04	167.93	18/02/2014	Cyperaceae	*Cyperus rotundus*	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60340 a
-29.03	167.93	19/02/2014	Cyperaceae	*Cyperus rotundus*	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60341 a
-29.12	167.95	15/10/2014	Cyperaceae	*Cyperus rotundus*	Pucciniaceae	*Puccinia cyperi*	Hand collection	BRIP 61748 a
-29.04	167.96	19/02/2014	Asteraceae	*Dahlia* Cav.	Pleosporaceae	*Stemphylium* sp.	Hand collection	BRIP 60357 a
-29.00	167.93	30/09/2013	Solanaceae	*Datura stramonium* L.	Botryosphaeriaceae	*Neofusicoccum parvum*	Hand collection	BRIP 60083 a
-29.00	167.93	30/09/2013	Solanaceae	*Datura stramonium*	Incertae sedis	*Phoma* sp.	Hand collection	BRIP 60083 b
-29.00	167.93	12/06/2013	Apiaceae	*Daucus carota*	Mycosphaerellaceae	*Cercospora carotae*	Hand collection	BRIP 59565 a
-29.00	167.92	29/05/2014	Apiaceae	*Daucus carota*	Mycosphaerellaceae	*Cercospora carotae*	Hand collection	BRIP 61416 a
-29.00	167.93	30/09/2013	Apiaceae	*Daucus carota*	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 59803 a
-29.00	167.94	16/10/2014	Fabaceae	*Desmodium incanum* (G.Mey.) DC.	Chaetomiaceae	*Chaetomium* sp.	Hand collection	BRIP 61709 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.00	167.94	16/10/2014	Fabaceae	*Desmodium incanum*	Pleosporaceae	*Epicoccum nigrum*	Hand collection	BRIP 61709 b
-29.01	167.93	13/06/2013		*Dianella* Lam.	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 59324 a
-29.04	167.96	14/10/2013	Caryophyllaceae	*Dianthus caryophyllus* L.	Pucciniaceae	*Uromyces dianthi*	Hand collection	BRIP 60234 a
-29.04	167.96	19/02/2014	Caryophyllaceae	*Dianthus caryophyllus*	Pucciniaceae	*Uromyces dianthi*	Hand collection	BRIP 61033 a
-29.01	167.94	25/05/2014	Convolvulaceae	*Dichondra repens* J.R.Forst. & G.Forst.	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 61249 a
-29.01	167.94	2/10/2013	Convolvulaceae	*Dichondra repens*	Pucciniaceae	*Puccinia dichondrae*	Hand collection	BRIP 60027 a
-29.03	167.95	16/02/2014	Iridaceae	*Dietes grandiflora* N.E.Br.	Glomerellaceae	*Colletotrichum queenslandicum*	Hand collection	BRIP 60355 a
-29.04	167.98	18/02/2014	Poaceae	*Digitaria ciliaris* (Retz.) Koeler	Pucciniaceae	*Puccinia oahuensis*	Hand collection	BRIP 61041 a
-29.04	167.92	18/02/2014	Poaceae	*Digitaria ciliaris*	Pucciniaceae	*Puccinia oahuensis*	Hand collection	BRIP 61054 a
-29.03	167.98	14/06/2013	Poaceae	*Digitaria ciliaris*	Pucciniaceae	*Puccinia oahuensis*	Hand collection	BRIP 59578 a
-29.03	167.93	12/06/2013	Poaceae	*Digitaria ciliaris*	Pucciniaceae	*Puccinia oahuensis*	Hand collection	BRIP 59660 a
-29.00	167.94	30/09/2013	Poaceae	*Digitaria ciliaris*	Pucciniaceae	*Puccinia oahuensis*	Hand collection	BRIP 60212 a
-29.00	167.93	12/10/2014	Poaceae	*Digitaria ciliaris*	Pucciniaceae	*Puccinia oahuensis*	Hand collection	BRIP 61731 a
-29.03	167.99	21/02/2014	Poaceae	*Digitaria* Haller	Magnaporthaceae	*Pyricularia* sp.	Hand collection	BRIP 60350 a
-29.03	167.94	17/02/2014	Cucurbitaceae	*Diplocyclos palmatus* subsp. *affinis* (Endl.) P.S.Green	Glomerellaceae	*Colletotrichum simmondsii*	Hand collection	BRIP 60297 a
-29.05	167.96	17/06/2013	Pontederiaceae	*Eichhornia crassipes* (Mart.) Solms	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 59387 a
-29.05	167.96	17/06/2013	Pontederiaceae	*Eichhornia crassipes*	Incertae sedis	*Nigrospora sphaerica*	Hand collection	BRIP 59387 b
-29.03	167.94	28/05/2014	Celastraceae	*Elaeodendron curtipendulum* Endl.	Hymenochaetaceae	*Phellinus noxius*	Hand collection	BRIP 61420 a
-29.02	167.96	30/05/2014	Celastraceae	*Elaeodendron curtipendulum*	Hymenochaetaceae	*Phellinus noxius*	Hand collection	BRIP 61426 a
-29.05	167.92	12/10/2014	Euphorbiaceae	*Euphorbia peplus* L.	Melampsoraceae	*Melampsora euphorbiae-gerardianae*	Hand collection	BRIP 61755 a
-29.04	167.92	29/09/2013	Euphorbiaceae	*Euphorbia peplus*	Melampsoraceae	*Melampsora euphorbiae-gerardianae*	Hand collection	BRIP 60015 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.04	167.99	24/05/2014	Euphorbiaceae	*Euphorbia peplus*	Erysiphaceae	*Podosphaera euphorbiae*	Hand collection	BRIP 61217 a
-29.04	167.96	18/02/2014	Moraceae	*Ficus carica* L.	Phakopsoraceae	*Cerotelium fici*	Hand collection	BRIP 61040 a
-29.04	167.93	18/02/2014	Moraceae	*Ficus carica*	Phakopsoraceae	*Cerotelium fici*	Hand collection	BRIP 61044 a
-29.04	167.99	26/05/2014	Moraceae	*Ficus carica*	Phakopsoraceae	*Cerotelium fici*	Hand collection	BRIP 61225 a
-29.01	167.93	17/02/2014	Moraceae	*Ficus carica*	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 60301 a
-29.02	167.96	19/02/2014	Apiaceae	*Foeniculum vulgare* Mill.	Pleosporaceae	*Alternaria selini*	Hand collection	BRIP 60320 a
-29.00	167.93	12/06/2013	Rosaceae	*Fragaria ×ananassa* (Weston) Duchesne ex Rozier	Glomerellaceae	*Colletotrichum gloeosporioides*	Hand collection	BRIP 59323 b
-29.04	167.99	17/02/2014	Rosaceae	*Fragaria ×ananassa*	Nectriaceae	*Fusarium oxysporum*	Hand collection	BRIP 60306 b
-29.04	167.99	17/02/2014	Rosaceae	*Fragaria ×ananassa*	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 60306 a
-29.05	167.96	16/12/2014	Rosaceae	*Fragaria ×ananassa*	Mucoraceae	*Rhizopus stolonifer*	Hand collection	BRIP 61936 a
-29.00	167.93	12/06/2013	Rosaceae	*Fragaria ×ananassa*	Incertae sedis	*Sphaeronaemella fragariae*	Hand collection	BRIP 59323 a
-29.00	167.93	30/09/2013	Papaveraceae	*Fumaria muralis* Sond. ex W.D.J.Koch	Erysiphaceae	*Erysiphe cruciferarum*	Hand collection	BRIP 60202 a
-29.13	167.95	14/10/2014	Asteraceae	*Gamochaeta americana* (Mill.) Wedd.	Pucciniaceae	*Puccinia gnaphaliicola*	Hand collection	BRIP 61740 a
-29.04	167.94	1/10/2013	Asteraceae	*Gamochaeta americana*	Pucciniaceae	*Puccinia gnaphaliicola*	Hand collection	BRIP 60010 a
-29.01	167.93	29/05/2014	Asteraceae	*Gamochaeta americana*	Pucciniaceae	*Puccinia gnaphaliicola*	Hand collection	BRIP 61243 a
-29.00	167.93	15/12/2014	Asteraceae	*Gamochaeta americana*	Pucciniaceae	*Puccinia gnaphaliicola*	Hand collection	BRIP 61952 a
-29.04	167.96	19/02/2014	Asteraceae	*Gerbera* L.	Pleosporaceae	*Alternaria alternata*	Hand collection	BRIP 60322 a
-29.04	167.96	15/12/2014	Asteraceae	*Gerbera* sp.	Pleosporaceae	*Alternaria* sp.	Hand collection	BRIP 61918 c
-29.04	167.96	15/12/2014	Asteraceae	*Gerbera* sp.	Davidiellaceae	*Cladosporium* sp.	Hand collection	BRIP 61918 a
-29.04	167.96	15/12/2014	Asteraceae	*Gerbera* sp.	Davidiellaceae	*Cladosporium* sp.	Hand collection	BRIP 61918 b
-29.03	167.99	21/02/2014	Fabaceae	*Glycine max* (L.) Merr.	Diaporthaceae	*Diaporthe endophytica*	Hand collection	BRIP 60329 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.03	167.99	21/02/2014	Fabaceae	*Glycine max*	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 60329 b
-29.04	167.96	18/02/2014	Proteaceae	*Grevillea robusta* A.Cunn. ex R.Br.	Mycosphaerellaceae	*Pseudocercospora* sp.	Hand collection	BRIP 61039 a
-29.04	167.99	17/02/2014		*Hemerocallis* L.	Dothioraceae	*Aureobasidium microstictum*	Hand collection	BRIP 60300 a
-29.04	167.99	17/02/2014		*Hemerocallis* sp.	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 60300 b
-29.12	167.95	14/10/2014	Malvaceae	*Hibiscus insularis* Endl.	Mycosphaerellaceae	*Acervuloseptoria* sp.	Hand collection	BRIP 61701 a
-29.12	167.95	14/10/2014	Malvaceae	*Hibiscus insularis*	Nectriaceae	*Fusarium incarnatum*	Hand collection	BRIP 61720 a
-29.12	167.95	14/10/2014	Malvaceae	*Hibiscus insularis*	Nectriaceae	*Fusarium incarnatum*	Hand collection	BRIP 61720 b
-29.03	167.99	21/02/2014	Poaceae	*Hordeum vulgare*	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60349 a
-29.04	167.93	18/02/2014	Rhamnaceae	*Hovenia dulcis* Thunb.	Incertae sedis	*Phoma* sp.	Hand collection	BRIP 61045 a
-29.02	167.96	26/05/2014	Arecaceae	*Howea forsteriana* (C.Moore & F.Muell.) Becc.	Glomerellaceae	*Colletotrichum aotearoa*	Hand collection	BRIP 61250 a
-29.01	167.93	29/09/2013	Arecaceae	*Howea forsteriana*	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 59799 a
-29.03	167.93	19/02/2014	Arecaceae	*Howea forsteriana*	Incertae sedis	*Trichothecium roseum*	Hand collection	BRIP 60319 a
-29.12	167.95	14/10/2014	Asteraceae	*Hypochaeris radicata* L.	Pucciniaceae	*Puccinia hieracii*	Hand collection	BRIP 61741 a
-29.03	167.96	31/05/2014	Convolvulaceae	*Ipomoea batatas* (L.) Lam.	Diaporthaceae	*Diaporthe batatas*	Hand collection	BRIP 61258 b
-29.03	167.96	31/05/2014	Convolvulaceae	*Ipomoea batatas*	Nectriaceae	*Fusarium oxysporum*	Hand collection	BRIP 61258 a
-29.04	167.93	18/02/2014	Convolvulaceae	*Ipomoea batatas*	Amphisphaeriaceae	*Pestalotiopsis* sp.	Hand collection	BRIP 60317 a
-29.03	167.94	27/05/2014	Convolvulaceae	*Ipomoea indica* (Burm.) Merr.	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 61252 a
-29.04	167.94	21/02/2014	Convolvulaceae	*Ipomoea indica*	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 60327 a
-29.02	167.97	16/10/2014	Oleaceae	*Jasminum simplicifolium* G.Forst.	Glomerellaceae	*Colletotrichum queenslandicum*	Hand collection	BRIP 61706 a
-29.04	167.99	26/05/2014	Fabaceae	*Lablab purpureus* (L.) Sweet	Pucciniaceae	*Uromyces vignae*	Hand collection	BRIP 61224 a
-29.03	167.93	12/06/2013	Asteraceae	*Lactuca sativa* L.	Mycosphaerellaceae	*Septoria lactucae*	Hand collection	BRIP 59320 b

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.03	167.93	12/06/2013	Asteraceae	*Lactuca sativa*	Pleosporaceae	*Stemphylium* sp.	Hand collection	BRIP 59320 a
-29.03	167.94	16/06/2013	Malvaceae	*Lagunaria patersonia* (Andrews) G.Don	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 59332 a
-29.06	167.94	20/02/2014	Malvaceae	*Lagunaria patersonia*	Nectriaceae	*Fusarium equiseti*	Hand collection	BRIP 60362 a
-29.05	167.92	12/10/2014	Malvaceae	*Lagunaria patersonia*	Nectriaceae	*Fusarium incarnatum*	Hand collection	BRIP 61695 b
-29.12	167.95	14/10/2014	Malvaceae	*Lagunaria patersonia*	Phakopsoraceae	*Phakopsora* sp.	Hand collection	BRIP 61738 a
-29.05	167.92	12/10/2014	Malvaceae	*Lagunaria patersonia*	Phakopsoraceae	*Phakopsora* sp.	Hand collection	BRIP 61695 a
-29.01	167.94	25/05/2014	Malvaceae	*Lagunaria patersonia*	Phakopsoraceae	*Phakopsora* sp.	Hand collection	BRIP 61219 a
-29.03	167.93	28/05/2014	Malvaceae	*Lagunaria patersonia*	Hymenochaetaceae	*Phellinus noxius*	Hand collection	BRIP 61418 a
-29.04	167.96	15/12/2014	Plumbaginaceae	*Limonium sinuatum* (L.) Mill.	Mycosphaerellaceae	*Cercospora beticola*	Hand collection	BRIP 61920 a
-29.06	167.94	19/12/2014	Campanulaceae	*Lobelia anceps* L.f.	Pucciniaceae	*Puccinia aucta*	Hand collection	BRIP 61951 a
-29.05	167.99	3/10/2013	Campanulaceae	*Lobelia anceps*	Pucciniaceae	*Puccinia aucta*	Hand collection	BRIP 60028 a
-29.05	167.99	21/02/2014	Campanulaceae	*Lobelia anceps*	Pucciniaceae	*Puccinia aucta*	Hand collection	BRIP 61061 a
-29.12	167.95	14/10/2014	Poaceae	*Lolium perenne* L.	Pucciniaceae	*Puccinia coronata*	Hand collection	BRIP 61739 a
-29.03	167.96	4/10/2013	Poaceae	*Lolium perenne*	Pucciniaceae	*Puccinia coronata*	Hand collection	BRIP 60223 a
-29.04	167.94	4/10/2013	Fabaceae	*Lotus angustissimus* L.	Pucciniaceae	*Uromyces anthyllidis*	Hand collection	BRIP 60008 a
-29.01	167.94	3/10/2013	Fabaceae	*Lotus uliginosus* Schkuhr	Pucciniaceae	*Uromyces anthyllidis*	Hand collection	BRIP 60033 a
-29.01	167.94	3/10/2013	Fabaceae	*Lotus uliginosus*	Pucciniaceae	*Uromyces anthyllidis*	Hand collection	BRIP 60035 a
-29.01	167.94	22/02/2014	Fabaceae	*Lotus uliginosus*	Pucciniaceae	*Uromyces anthyllidis*	Hand collection	BRIP 61064 a
-29.01	167.94	16/10/2014	Fabaceae	*Lotus uliginosus*	Pucciniaceae	*Uromyces anthyllidis*	Hand collection	BRIP 61751 a
-29.12	167.95	15/10/2014	Fabaceae	*Lupinus cosentinii* Guss.	Erysiphaceae	*Erysiphe trifoliorum*	Hand collection	BRIP 61702 a
-29.05	167.94	29/09/2013	Fabaceae	*Lupinus cosentinii*	Erysiphaceae	*Erysiphe trifoliorum*	Hand collection	BRIP 60199 a

Lat.itude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.03	167.93	2/10/2013	Fabaceae	*Lupinus cosentinii*	Erysiphaceae	*Erysiphe trifoliorum*	Hand collection	BRIP 60218 a
-29.03	167.93	28/05/2014	Fabaceae	*Lupinus cosentinii*	Erysiphaceae	*Erysiphe trifoliorum*	Hand collection	BRIP 61239 a
-29.12	167.95	15/10/2014	Fabaceae	*Lupinus cosentinii*	Nectriaceae	*Fusarium bactridioides*	Hand collection	BRIP 61702 b
-29.02	167.96	30/05/2014	Proteaceae	*Macadamia integrifolia* Maiden & Betche	Hymenochaetaceae	*Phellinus noxius*	Hand collection	BRIP 61422 a
-29.03	167.94	16/06/2013	Piperaceae	*Macropiper excelsum* subsp. *psittacorum* (Endl.) Sykes	Mycosphaerellaceae	*Cercospora* sp.	Hand collection	BRIP 59381 b
-29.03	167.94	16/06/2013	Piperaceae	*Macropiper excelsum* subsp. *psittacorum*	Glomerellaceae	*Colletotrichum karsti*	Hand collection	BRIP 59381 a
-29.03	167.95	4/10/2013	Fabaceae	*Macroptilium atropurpureum* (DC.) Urb.	Diaporthaceae	*Diaporthe endophytica*	Hand collection	BRIP 60088 b
-29.03	167.95	4/10/2013	Fabaceae	*Macroptilium atropurpureum*	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 60088 a
-29.04	167.98	18/02/2014	Fabaceae	*Macroptilium atropurpureum*	Pucciniaceae	*Uromyces appendiculatus* var. *crassitunicatus*	Hand collection	BRIP 61032 a
-29.04	167.94	17/12/2014	Fabaceae	*Macroptilium atropurpureum*	Pucciniaceae	*Uromyces appendiculatus* var. *crassitunicatus*	Hand collection	BRIP 61945 a
-29.01	167.94	3/10/2013	Fabaceae	*Macroptilium atropurpureum*	Pucciniaceae	*Uromyces appendiculatus* var. *crassitunicatus*	Hand collection	BRIP 60034 a
-29.03	167.93	28/05/2014	Fabaceae	*Macrotyloma axillare* var. *axillare*	Erysiphaceae	*Erysiphe trifoliorum*	Hand collection	BRIP 61238 a
-29.01	167.94	16/10/2014	Fabaceae	*Macrotyloma axillare* (E.Mey.) Verdc. var. *axillare*	Erysiphaceae	*Erysiphe trifoliorum*	Hand collection	BRIP 61752 a
-29.03	167.94	17/02/2014	Rosaceae	*Malus domestica* Borkh.	Glomerellaceae	*Colletotrichum simmondsii*	Hand collection	BRIP 60296 b
-29.04	167.99	14/06/2013	Rosaceae	*Malus domestica*	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 59361 a
-29.03	167.94	28/05/2014	Rosaceae	*Malus domestica*	Elsinoaceae	*Elsinoë pyri*	Hand collection	BRIP 61353 a
-29.04	167.96	15/12/2014	Rosaceae	*Malus domestica*	Botryosphaeriaceae	*Neofusicoccum parvum*	Hand collection	BRIP 61919 a
-29.04	167.99	1/10/2013	Rosaceae	*Malus domestica*	Erysiphaceae	*Podosphaera leucotricha*	Hand collection	BRIP 60216 a
-29.03	167.94	17/02/2014	Rosaceae	*Malus domestica*	Erysiphaceae	*Podosphaera leucotricha*	Hand collection	BRIP 60296 a
-29.03	167.94	28/05/2014	Rosaceae	*Malus domestica*	Erysiphaceae	*Podosphaera leucotricha*	Hand collection	BRIP 61240 a
-29.03	167.93	28/05/2014	Rosaceae	*Malus domestica*	Erysiphaceae	*Podosphaera leucotricha*	Hand collection	BRIP 61242 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.01	167.93	13/06/2013	Anacardiaceae	*Mangifera indica* L.	Glomerellaceae	*Colletotrichum asianum*	Hand collection	BRIP 59325 a
-29.01	167.93	30/09/2013	Anacardiaceae	*Mangifera indica*	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 59718 a
-29.01	167.93	30/09/2013	Anacardiaceae	*Mangifera indica*	Botryosphaeriaceae	*Neofusicoccum parvum*	Hand collection	BRIP 59718 b
-29.03	167.95	20/02/2014	Fabaceae	*Medicago lupulina* L.	Erysiphaceae	*Erysiphe trifoliorum*	Hand collection	BRIP 61051 b
-29.03	167.95	4/10/2013	Fabaceae	*Medicago lupulina*	Pucciniaceae	*Uromyces anthyllidis*	Hand collection	BRIP 60224 a
-29.03	167.95	20/02/2014	Fabaceae	*Medicago lupulina*	Pucciniaceae	*Uromyces anthyllidis*	Hand collection	BRIP 61051 a
-29.01	167.92	20/02/2014	Fabaceae	*Medicago lupulina*	Pucciniaceae	*Uromyces anthyllidis*	Hand collection	BRIP 61059 a
-29.12	167.95	14/10/2014	Fabaceae	*Medicago polymorpha* L.	Erysiphaceae	*Erysiphe trifoliorum*	Hand collection	BRIP 61746 a
-29.02	167.93	26/05/2014	Fabaceae	*Medicago polymorpha*	Erysiphaceae	*Erysiphe trifoliorum*	Hand collection	BRIP 61229 a
-29.05	167.94	29/09/2013	Fabaceae	*Medicago polymorpha*	Incertae sedis	*Phoma* sp.	Hand collection	BRIP 60200 a
-29.00	167.93	12/10/2014	Fabaceae	*Medicago polymorpha*	Dermateaceae	*Pseudopeziza medicaginis*	Hand collection	BRIP 61732 a
-29.05	167.94	29/09/2013	Fabaceae	*Medicago polymorpha*	Pucciniaceae	*Uromyces anthyllidis*	Hand collection	BRIP 60002 a
-29.05	167.93	13/06/2013	Fabaceae	*Medicago sativa* L.	Incertae sedis	*Phoma medicaginis*	Hand collection	BRIP 59376 a
-29.05	167.93	17/12/2014	Fabaceae	*Medicago sativa* L.	Pucciniaceae	*Uromyces anthyllidis*	Hand collection	BRIP 61944 a
-29.05	167.92	20/02/2014	Poaceae	*Megathyrsus maximus* var. *pubiglumis* (K.Schum.)	Pucciniaceae	*Puccinia substriata*	Hand collection	BRIP 61052 a
-29.04	167.93	18/02/2014	Poaceae	*Megathyrsus maximus* var. *pubiglumis*	Pucciniaceae	*Puccinia substriata*	Hand collection	BRIP 61053 a
-29.03	167.93	16/02/2014	Poaceae	*Megathyrsus maximus* var. *pubiglumis*	Pucciniaceae	*Puccinia substriata*	Hand collection	BRIP 61028 a
-29.03	167.93	28/05/2014	Poaceae	*Megathyrsus maximus* var. *pubiglumis*	Pucciniaceae	*Puccinia substriata*	Hand collection	BRIP 61237 a
-29.03	167.98	28/05/2014	Meliaceae	*Melia azedarach* L.	Mycosphaerellaceae	*Pseudocercospora* sp.	Hand collection	BRIP 61351 a
-29.02	167.96	17/06/2013	Meliaceae	*Melia azedarach*	Mycosphaerellaceae	*Pseudocercospora subsessilis*	Hand collection	BRIP 59663 a
-29.04	167.92	29/09/2013	Fabaceae	*Melilotus indicus* (L.) All.	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 60080 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.04	167.92	29/09/2013	Fabaceae	*Melilotus indicus*	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 60080 b
-29.04	167.92	29/09/2013	Fabaceae	*Melilotus indicus*	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 60080 c
-29.12	167.95	14/10/2014	Fabaceae	*Melilotus indicus*	Erysiphaceae	*Erysiphe trifoliorum*	Hand collection	BRIP 61745 a
-29.00	167.93	30/09/2013	Fabaceae	*Melilotus indicus*	Erysiphaceae	*Erysiphe trifoliorum*	Hand collection	BRIP 60229 a
-29.04	167.96	13/10/2014	Fabaceae	*Melilotus indicus*	Pleosporaceae	*Stemphylium solani*	Hand collection	BRIP 61719 a
-29.02	167.93	26/05/2014	Fabaceae	*Melilotus indicus*	Pucciniaceae	*Uromyces anthyllidis*	Hand collection	BRIP 61228 a
-29.03	167.95	16/06/2013	Apocynaceae	*Melodinus baueri* Endl.	Phyllachoraceae	*Phyllachora* sp.	Hand collection	BRIP 59665 a
-29.04	167.96	19/02/2014	Lamiaceae	*Mentha ×piperita* L.	Pucciniaceae	*Puccinia menthae*	Hand collection	BRIP 61035 a
-29.03	167.94	16/06/2013	Araliaceae	*Meryta angustifolia* (Endl.) Seem.	Glomerellaceae	*Colletotrichum boninense*	Hand collection	BRIP 59328 a
-29.01	167.95	16/06/2013	Polypodiaceae	*Microsorum pustulatum* (G.Forst.) Copel subsp.	Glomerellaceae	*Colletotrichum boninense*	Hand collection	BRIP 59330 b
-29.03	167.94	17/02/2014	Polypodiaceae	*Microsorum pustulatum* subsp. *pustulatum*	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 60304 b
-29.03	167.94	17/02/2014	Polypodiaceae	*Microsorum pustulatum* subsp. *pustulatum*	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 60304 a
-29.01	167.95	16/06/2013	Polypodiaceae	*Microsorum pustulatum subsp. pustulatum*	Amphisphaeriaceae	*Pestalotiopsis* sp.	Hand collection	BRIP 59330 a
-29.04	167.94	4/10/2013	Fabaceae	*Milletia australis* (Endl.) Benth.	Chaconiaceae	*Maravalia milleticola*	Hand collection	BRIP 60207 a
-29.04	167.94	21/02/2014	Fabaceae	*Milletia australis*	Chaconiaceae	*Maravalia milleticola*	Hand collection	BRIP 61062 a
-29.00	167.93	30/09/2013	Araceae	*Monstera deliciosa* Liebm.	Nectriaceae	Fusarium sp.	Hand collection	BRIP 59699 a
-29.00	167.93	20/02/2014	Araceae	*Monstera deliciosa*	Nectriaceae	*Fusarium* sp.	Hand collection	BRIP 60324 a
-29.00	167.93	20/02/2014	Araceae	*Monstera deliciosa*	Nectriaceae	*Fusarium* sp.	Hand collection	BRIP 60324 b
-29.00	167.93	30/09/2013	Araceae	*Monstera deliciosa*	Pucciniaceae	*Puccinia paullula*	Hand collection	BRIP 60018 a
-29.04	167.99	14/06/2013	Moraceae	*Morus alba* L.	Mycosphaerellaceae	*Pseudocercospora mori*	Hand collection	BRIP 59572 a
-29.01	167.93	30/09/2013	Moraceae	*Morus alba*	Mycosphaerellaceae	*Pseudocercospora mori*	Hand collection	BRIP 60232 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.01	167.94	18/12/2014	Polygonaceae	*Muehlenbeckia australis* (G.Forst.) Meisn.	Pucciniaceae	*Puccinia tiritea*	Hand collection	BRIP 61949 a
-29.00	167.93	30/09/2013	Musaceae	*Musa ×paradisiaca* L. 'Bluggoe'	Tremellaceae	*Cryptococcus* sp.	Hand collection	BRIP 59800 b
-29.00	167.93	30/09/2013	Musaceae	*Musa ×paradisiaca* 'Bluggoe'	Mycosphaerellaceae	*Mycosphaerella* sp.	Hand collection	BRIP 59800 a
-29.00	167.93	30/09/2013	Musaceae	*Musa ×paradisiaca* 'Bluggoe'	Botryosphaeriaceae	*Phyllosticta maculata*	Hand collection	BRIP 59800 c
-29.04	167.99	17/02/2014	Musaceae	*Musa acuminata* Colla	Glomerellaceae	*Colletotrichum queenslandicum*	Hand collection	BRIP 60298 b
-29.03	167.96	4/10/2013	Musaceae	*Musa acuminata*	Glomerellaceae	*Colletotrichum queenslandicum*	Hand collection	BRIP 59712 a
-29.06	167.94	19/12/2014	Musaceae	*Musa acuminata*	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 61933 a
-29.05	167.94	29/09/2013	Musaceae	*Musa acuminata*	Incertae sedis	*Cordana johnstonii*	Hand collection	BRIP 60230 a
-29.06	167.94	19/12/2014	Musaceae	*Musa acuminata*	Incertae sedis	*Cordana* sp.	Hand collection	BRIP 61933 b
-29.04	167.99	1/10/2013	Musaceae	*Musa acuminata*	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 59702 a
-29.01	167.93	29/09/2013	Musaceae	*Musa acuminata*	Mycosphaerellaceae	*Mycosphaerella musae*	Hand collection	BRIP 60231 a
-29.01	167.93	30/09/2013	Musaceae	*Musa acuminata*	Mycosphaerellaceae	*Mycosphaerella musae*	Hand collection	BRIP 60233 a
-29.04	167.99	17/02/2014	Musaceae	*Musa acuminata*	Botryosphaeriaceae	*Neofusicoccum parvum*	Hand collection	BRIP 60298 a
-29.03	167.98	16/10/2014	Musaceae	*Musa acuminata*	Botryosphaeriaceae	*Phyllosticta capitalensis*	Hand collection	BRIP 61708 a
-29.00	167.93	20/02/2014	Musaceae	*Musa acuminata*	Mycosphaerellaceae	*Phyllosticta maculata*	Hand collection	BRIP 60360 a
-29.04	167.94	18/06/2013	Musaceae	*Musa acuminata*	Mycosphaerellaceae	*Pseudocercospora fijiensis*	Hand collection	BRIP 59370 a
-29.03	167.99	17/06/2013	Musaceae	*Musa acuminata*	Mycosphaerellaceae	*Pseudocercospora fijiensis*	Hand collection	BRIP 59585 a
-29.01	167.93	29/05/2014	Musaceae	*Musa acuminata*	Mycosphaerellaceae	*Pseudocercospora fijiensis*	Hand collection	BRIP 61415 a
-29.01	167.93	29/05/2014	Musaceae	*Musa acuminata*	Mycosphaerellaceae	*Pseudocercospora fijiensis*	Hand collection	BRIP 61415 b
-29.00	167.93	29/05/2014	Musaceae	*Musa acuminata*	Mycosphaerellaceae	*Pseudocercospora* sp.	Hand collection	BRIP 61413 a
-29.04	167.99	14/06/2013	Musaceae	*Musa acuminata* 'Cavendish'	Magnaporthaceae	*Pyricularia* sp.	Hand collection	BRIP 59659 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.02	167.97	17/06/2013	Scrophulariaceae	*Myoporum obscurum* Endl.	Incertae sedis	*Nigrospora sphaerica*	Hand collection	BRIP 59386 a
-29.05	167.97	13/06/2013	Primulaceae	*Myrsine ralstoniae* (P.S.Green) Jackes	Glomerellaceae	*Colletotrichum karsti*	Hand collection	BRIP 59378 a
-29.05	167.97	13/06/2013	Primulaceae	*Myrsine ralstoniae*	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 59378 b
-29.01	167.95	16/06/2013	Primulaceae	*Myrsine ralstoniae*	Amphisphaeriaceae	*Pestalotiopsis* sp.	Hand collection	BRIP 59329 a
-29.02	167.96	30/05/2014	Primulaceae	*Myrsine ralstoniae*	Hymenochaetaceae	*Phellinus noxius*	Hand collection	BRIP 61425 a
-29.05	167.97	13/06/2013	Primulaceae	*Myrsine ralstoniae*	Botryosphaeriaceae	*Phyllosticta capitalensis*	Hand collection	BRIP 59378 c
-29.03	167.95	4/10/2013	Fabaceae	*Neonotonia wightii* (Wight & Arn.) J.A.Lackey	Phakopsoraceae	*Phakopsora pachyrhizi*	Hand collection	BRIP 60228 a
-29.01	167.93	30/09/2013	Fabaceae	*Neonotonia wightii*	Phakopsoraceae	*Phakopsora pachyrhizi*	Hand collection	BRIP 60021 a
-29.00	167.93	29/05/2014	Fabaceae	*Neonotonia wightii*	Phakopsoraceae	*Phakopsora pachyrhizi*	Hand collection	BRIP 61245 a
-29.03	167.99	1/10/2013	Fabaceae	*Neonotonia wightii*	Pucciniaceae	*Uromyces anthyllidis*	Hand collection	BRIP 60205 a
-29.00	167.93	30/09/2013	Fabaceae	*Neonotonia wightii*	Pucciniaceae	*Uromyces anthyllidis*	Hand collection	BRIP 60209 a
-29.03	167.98	14/06/2013	Solanaceae	*Nicandra physalodes* (L.) Gaertn.	Erysiphaceae	*Golovinomyces orontii*	Hand collection	BRIP 59577 a
-29.04	167.99	18/02/2014	Lamiaceae	*Ocimum basilicum* L.	Nectriaceae	*Fusarium oxysporum*	Hand collection	BRIP 60309 a
-29.00	167.93	12/06/2013	Lamiaceae	*Ocimum basilicum*	Pleosporaceae	*Stemphylium* sp.	Hand collection	BRIP 59322 a
-29.12	167.95	15/10/2014	Oleaceae	*Olea europaea* subsp. *cuspidata* (Wall. ex G.Don) Cif.	Incertae sedis	*Peyronellaea* sp.	Hand collection	BRIP 61705 a
-29.12	167.95	15/10/2014	Oleaceae	*Olea europaea* subsp. *cuspidata*	Incertae sedis	*Toxicocladosporium* sp.	Hand collection	BRIP 61705 b
-29.02	167.93	26/05/2014	Oxalidaceae	*Oxalis debilis* Kunth	Pucciniaceae	*Puccinia oxalidis*	Hand collection	BRIP 61227 a
-29.01	167.93	29/09/2013	Oxalidaceae	*Oxalis debilis*	Pucciniaceae	*Puccinia oxalidis*	Hand collection	BRIP 60009 a
-29.06	167.94	29/09/2013	Poaceae	*Panicum* L.	Pucciniaceae	*Uromyces setariae-italicae*	Hand collection	BRIP 60198 a
-29.02	167.92	16/02/2014	Poaceae	*Paspalum dilatatum* Poir.	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60332 b
-29.02	167.92	16/02/2014	Poaceae	*Paspalum dilatatum*	Davidiellaceae	*Cladosporium perangustum*	Hand collection	BRIP 60332 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.03	167.95	16/06/2013	Passifloraceae	*Passiflora edulis* Sims	Glomerellaceae	*Colletotrichum karsti*	Hand collection	BRIP 59331 a
-29.00	167.93	30/09/2013	Passifloraceae	*Passiflora edulis*	Glomerellaceae	*Colletotrichum magna*	Hand collection	BRIP 60082 c
-29.00	167.93	30/09/2013	Passifloraceae	*Passiflora edulis*	Glomerellaceae	*Colletotrichum novae-zelandiae*	Hand collection	BRIP 60082 f
-29.05	167.97	21/02/2014	Passifloraceae	*Passiflora edulis*	Glomerellaceae	*Colletotrichum queenslandicum*	Hand collection	BRIP 60328 c
-29.05	167.97	21/02/2014	Passifloraceae	*Passiflora edulis*	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 60328 b
-29.00	167.93	30/09/2013	Passifloraceae	*Passiflora edulis*	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 60082 b
-29.00	167.93	30/09/2013	Passifloraceae	*Passiflora edulis*	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 60082 d
-29.00	167.93	30/09/2013	Passifloraceae	*Passiflora edulis*	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 60082 g
-29.03	167.95	16/06/2013	Passifloraceae	*Passiflora edulis*	Pleosporaceae	*Curvularia* sp.	Hand collection	BRIP 59331 b
-29.00	167.93	30/09/2013	Passifloraceae	*Passiflora edulis*	Nectriaceae	Fusarium sp.	Hand collection	BRIP 60082 e
-29.05	167.97	21/02/2014	Passifloraceae	*Passiflora edulis*	Trichocomaceae	*Penicillium brevicompactum*	Hand collection	BRIP 60328 a
-29.00	167.93	30/09/2013	Passifloraceae	*Passiflora edulis*	Incertae sedis	*Phoma* sp.	Hand collection	BRIP 60082 a
-29.04	167.96	13/10/2014	Passifloraceae	*Passiflora ligularis* Juss.	Pleosporaceae	*Alternaria passiflorae*	Hand collection	BRIP 61716 a
-29.03	167.94	17/10/2014	Passifloraceae	*Passiflora ligularis*	Pleosporaceae	*Alternaria* sp.	Hand collection	BRIP 61726 a
-29.02	167.96	17/06/2013	Passifloraceae	*Passiflora ligularis*	Glomerellaceae	*Colletotrichum constrictum*	Hand collection	BRIP 59388 a
-29.04	167.96	13/10/2014	Passifloraceae	*Passiflora ligularis*	Glomerellaceae	*Colletotrichum queenslandicum*	Hand collection	BRIP 61717 b
-29.04	167.96	13/10/2014	Passifloraceae	*Passiflora ligularis*	Incertae sedis	*Stagonosporopsis* sp.	Hand collection	BRIP 61717 a
-29.04	167.99	26/05/2014	Geraniaceae	*Pelargonium* ×*hortorum* L.H.Bailey	Pucciniaceae	*Puccinia pelargonii-zonalis*	Hand collection	BRIP 61226 a
-29.03	167.99	14/06/2013	Geraniaceae	*Pelargonium* ×*hortorum*	Pucciniaceae	*Puccinia pelargonii-zonalis*	Hand collection	BRIP 59571 a
-29.00	167.93	30/09/2013	Geraniaceae	*Pelargonium* ×*hortorum*	Pucciniaceae	*Puccinia pelargonii-zonalis*	Hand collection	BRIP 60017 a
-29.04	167.99	17/02/2014	Geraniaceae	*Pelargonium* L'Hér. ex Aiton	Schizoparmaceae	*Coniella* sp.	Hand collection	BRIP 60305 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.00	167.93	30/09/2013	Lauraceae	*Persea americana* Mill.	Glomerellaceae	*Colletotrichum gloeosporioides*	Hand collection	BRIP 59693 a
-29.00	167.93	12/06/2013	Lauraceae	*Persea americana*	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 59321 a
-29.03	167.93	28/05/2014	Lauraceae	*Persea americana*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61259 b
-29.03	167.93	28/05/2014	Lauraceae	*Persea americana*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61259 c
-29.03	167.93	28/05/2014	Lauraceae	*Persea americana*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61259 d
-29.03	167.94	28/05/2014	Lauraceae	*Persea americana*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61260 b
-29.03	167.94	28/05/2014	Lauraceae	*Persea americana*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61260 c
-29.03	167.96	31/05/2014	Lauraceae	*Persea americana*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61354 a
-29.03	167.96	31/05/2014	Lauraceae	*Persea americana*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61354 b
-29.03	167.96	31/05/2014	Lauraceae	*Persea americana*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61354 c
-29.00	167.93	29/05/2014	Lauraceae	*Persea americana*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61352 a
-29.00	167.93	29/05/2014	Lauraceae	*Persea americana*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61352 b
-29.00	167.93	29/05/2014	Lauraceae	*Persea americana*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61352 c
-29.00	167.93	29/05/2014	Lauraceae	*Persea americana*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61352 d
-29.00	167.93	29/05/2014	Lauraceae	*Persea americana*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61352 e
-29.00	167.93	29/05/2014	Lauraceae	*Persea americana*	Nectriaceae	*Cylindrocladium* sp.	Hand collection	BRIP 61352 f
-29.01	167.93	17/02/2014	Lauraceae	*Persea americana*	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 60353 a
-29.03	167.94	28/05/2014	Lauraceae	*Persea americana*	Nectriaceae	*Fusarium* sp.	Hand collection	BRIP 61260 a
-29.01	167.93	30/09/2013	Lauraceae	*Persea americana*	Botryosphaeriaceae	*Neofusicoccum mangiferae*	Hand collection	BRIP 59696 a
-29.03	167.93	28/05/2014	Lauraceae	*Persea americana*	Pythiaceae	*Phytophthora* sp.	Hand collection	BRIP 61259 a
-29.06	167.94	16/02/2014	Polygonaceae	*Persicaria decipiens* (R.Br.) K.L.Wilson	Microbotryaceae	*Sphacelotheca polygoni-serrulati*	Hand collection	BRIP 61029 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.02	167.97	3/10/2013	Polygonaceae	*Persicaria decipiens*	Microbotryaceae	*Sphacelotheca polygoni-serrulati*	Hand collection	BRIP 60031 a
-29.04	167.99	18/02/2014	Apiaceae	*Petroselinum crispum* (Mill.) Fuss	Pleosporaceae	*Alternaria alternata*	Hand collection	BRIP 60330 b
-29.04	167.99	18/02/2014	Apiaceae	*Petroselinum crispum*	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60330 a
-29.05	167.94	29/09/2013	Apiaceae	*Petroselinum crispum*	Mycosphaerellaceae	*Septoria petroselini*	Hand collection	BRIP 59997 a
-29.05	167.99	3/10/2013	Apiaceae	*Petroselinum crispum*	Mycosphaerellaceae	*Septoria petroselini*	Hand collection	BRIP 60220 a
-29.03	167.98	20/02/2014	Fabaceae	*Phaseolus vulgaris* L.	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 60365 a
-29.05	167.93	4/10/2013	Fabaceae	*Phaseolus vulgaris*	Sclerotiniaceae	*Sclerotinia sclerotiorum*	Hand collection	BRIP 59711 a
-29.03	167.98	1/10/2013	Fabaceae	*Phaseolus vulgaris*	Pucciniaceae	*Uromyces appendiculatus*	Hand collection	BRIP 60020 a
-29.03	167.98	27/05/2014	Fabaceae	*Phaseolus vulgaris*	Pucciniaceae	*Uromyces appendiculatus*	Hand collection	BRIP 61234 a
-29.01	167.93	30/09/2013	Fabaceae	*Phaseolus vulgaris*	Pucciniaceae	*Uromyces appendiculatus*	Hand collection	BRIP 60036 a
-29.00	167.93	30/09/2013	Araceae	*Philodendron* Schott	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 59698 a
-29.03	167.95	17/06/2013	Agavaceae	*Phormium tenax* J.R.Forst. & G.Forst.	Glomerellaceae	*Colletotrichum phormii*	Hand collection	BRIP 59335 a
-29.06	167.94	20/02/2014	Agavaceae	*Phormium tenax*	Nectriaceae	*Fusarium* sp.	Hand collection	BRIP 60326 a
-29.06	167.94	20/02/2014	Agavaceae	*Phormium tenax*	Phaeosphaeriaceae	*Phaeosphaeria* sp.	Hand collection	BRIP 60326 b
-29.00	167.93	30/09/2013	Solanaceae	*Physalis peruviana* L.	Trichocomaceae	*Aspergillus fumigatus*	Hand collection	BRIP 60081 g
-29.00	167.93	30/09/2013	Solanaceae	*Physalis peruviana*	Diaporthaceae	*Diaporthe endophytica*	Hand collection	BRIP 60081 c
-29.00	167.93	30/09/2013	Solanaceae	*Physalis peruviana*	Diaporthaceae	*Diaporthe leucospermi*	Hand collection	BRIP 60081 a
-29.03	167.93	2/10/2013	Poaceae	*Physalis peruviana*	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 59706 a
-29.00	167.93	30/09/2013	Solanaceae	*Physalis peruviana*	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 60081 b
-29.00	167.93	30/09/2013	Solanaceae	*Physalis peruviana*	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 60081 d
-29.00	167.93	30/09/2013	Solanaceae	*Physalis peruviana*	Incertae sedis	*Phoma* sp.	Hand collection	BRIP 60081 e

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.00	167.93	30/09/2013	Solanaceae	*Physalis peruviana*	Plectosphaerellaceae	*Plectosphaerella* sp.	Hand collection	BRIP 60081 f
-29.00	167.93	30/09/2013	Solanaceae	*Physalis peruviana*	Erysiphaceae	*Podosphaera xanthii*	Hand collection	BRIP 60201 a
-29.00	167.93	30/09/2013	Solanaceae	*Physalis peruviana*	Sclerotiniaceae	*Sclerotinia sclerotiorum*	Hand collection	BRIP 59714 a
-29.02	167.96	19/02/2014	Phytolaccaceae	*Phytolacca octandra* L.	Glomerellaceae	*Colletotrichum dlienum*	Hand collection	BRIP 60356 a
-29.01	167.93	30/09/2013	Fabaceae	*Pisum sativum* L.	Incertae sedis	*Peyronellaea pinodella*	Hand collection	BRIP 59796 a
-29.01	167.93	13/06/2013	Fabaceae	*Pisum sativum*	Incertae sedis	*Peyronellaea pinodes*	Hand collection	BRIP 59359 a
-29.03	167.94	16/06/2013	Pittosporaceae	*Pittosporum bracteolatum* Endl.	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 59333 c
-29.03	167.94	16/06/2013	Pittosporaceae	*Pittosporum bracteolatum*	Amphisphaeriaceae	*Pestalotiopsis* sp.	Hand collection	BRIP 59333 a
-29.03	167.94	16/06/2013	Pittosporaceae	*Pittosporum bracteolatum*	Incertae sedis	*Phoma* sp.	Hand collection	BRIP 59333 b
-29.00	167.94	16/10/2014	Pittosporaceae	*Pittosporum bracteolatum*	Botryosphaeriaceae	*Phyllosticta capitalensis*	Hand collection	BRIP 61725 a
-29.01	167.93	30/09/2013	Plantaginaceae	*Plantago lanceolata* L.	Diaporthaceae	*Diaporthe subordinaria*	Hand collection	BRIP 60161 a
-29.01	167.93	30/09/2013	Plantaginaceae	*Plantago lanceolata*	Diaporthaceae	*Diaporthe subordinaria*	Hand collection	BRIP 60161 b
-29.05	167.98	3/10/2013	Plantaginaceae	*Plantago lanceolata*	Nectriaceae	*Fusarium solani*	Hand collection	BRIP 60164 a
-29.06	167.94	29/09/2013	Plantaginaceae	*Plantago lanceolata*	Erysiphaceae	*Golovinomyces sordidus*	Hand collection	BRIP 60196 a
-29.00	167.94	30/09/2013	Plantaginaceae	*Plantago lanceolata*	Erysiphaceae	*Golovinomyces sordidus*	Hand collection	BRIP 60214 a
-29.00	167.92	25/05/2014	Plantaginaceae	*Plantago lanceolata*	Erysiphaceae	*Golovinomyces sordidus*	Hand collection	BRIP 61221 a
-29.01	167.95	19/02/2014	Plantaginaceae	*Plantago major* L	Erysiphaceae	*Golovinomyces sordidus*	Hand collection	BRIP 61057 a
-29.03	167.93	12/06/2013	Apocynaceae	*Plumeria rubra* L.	Coleosporiaceae	*Coleosporium plumeriae*	Hand collection	BRIP 59559 a
-29.02	167.93	26/05/2014	Poaceae	*Poa annua* L.	Pucciniaceae	*Puccinia brachypodii*	Hand collection	BRIP 61230 a
-29.01	167.94	2/10/2013	Rosaceae	*Potentilla indica* (Andrews) Th.Wolf	Phragmidiaceae	*Phragmidium mexicanum*	Hand collection	BRIP 60026 a
-29.04	167.99	14/06/2013	Rosaceae	*Prunus dulcis* (Mill.) D.A.Webb.	Uropyxidaceae	*Tranzschelia discolor*	Hand collection	BRIP 59574 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.04	167.98	18/02/2014	Rosaceae	*Prunus persica* (L.) Batsch	Glomerellaceae	*Colletotrichum queenslandicum*	Hand collection	BRIP 60354 b
-29.03	167.99	20/02/2014	Rosaceae	*Prunus persica*	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 60361 a
-29.03	167.99	20/02/2014	Rosaceae	*Prunus persica*	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 60361 b
-29.03	167.95	19/12/2014	Rosaceae	*Prunus persica*	Mucoraceae	*Mucor* sp.	Hand collection	BRIP 61938 a
-29.04	167.98	18/02/2014	Rosaceae	*Prunus persica*	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 60354 a
-29.06	167.94	29/09/2013	Rosaceae	*Prunus persica*	Taphrinaceae	*Taphrina deformans*	Hand collection	BRIP 60197 a
-29.04	167.99	14/06/2013	Rosaceae	*Prunus persica*	Uropyxidaceae	*Tranzschelia discolor*	Hand collection	BRIP 59573 a
-29.01	167.95	16/06/2013	Myrtaceae	*Psidium cattleyanum* Sabine var. *cattleyanum*	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 59334 b
-29.01	167.95	16/06/2013	Myrtaceae	*Psidium cattleyanum* var. *cattleyanum*	Incertae sedis	*Khuskia oryzae*	Hand collection	BRIP 59334 a
-29.04	167.99	14/06/2013	Myrtaceae	*Psidium guajava* L.	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 59326 a
-29.04	167.99	17/02/2014	Rosaceae	*Pyrus communis* L.	Glomerellaceae	*Colletotrichum simmondsii*	Hand collection	BRIP 60299 a
-29.01	167.93	17/02/2014	Rosaceae	*Pyrus communis*	Glomerellaceae	*Colletotrichum theobromicola*	Hand collection	BRIP 60352 a
-29.01	167.93	13/06/2013	Rosaceae	*Pyrus communis*	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 59375 a
-29.00	167.93	30/09/2013	Brassicaceae	*Raphanus sativus* L.	Erysiphaceae	*Golovinomyces orontii*	Hand collection	BRIP 60204 a
-29.03	167.99	20/02/2014	Polygonaceae	*Rheum ×rhabarbarum* L.	Nectriaceae	*Fusarium* sp.	Hand collection	BRIP 60325 a
-29.03	167.99	1/10/2013	Polygonaceae	*Rheum ×rhabarbarum*	Incertae sedis	*Phoma* sp.	Hand collection	BRIP 59716 a
-29.03	167.94	27/05/2014	Arecaceae	*Rhopalostylis baueri* (Seem) H.Wendl. & Drude	Glomerellaceae	*Colletotrichum karsti*	Hand collection	BRIP 61253 a
-29.03	167.94	27/05/2014	Arecaceae	*Rhopalostylis baueri*	Amphisphaeriaceae	*Pestalotiopsis* sp.	Hand collection	BRIP 61253 b
-29.04	167.94	21/02/2014	Euphorbiaceae	*Ricinus communis* L.	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60346 a
-29.04	167.94	21/02/2014	Euphorbiaceae	*Ricinus communis*	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60346 b
-29.03	167.95	17/06/2013	Euphorbiaceae	*Ricinus communis*	Melampsoraceae	*Melampsora ricini*	Hand collection	BRIP 59581 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.02	167.93	16/12/2014	Euphorbiaceae	*Ricinus communis*	Pleosporaceae	*Stemphylium solani*	Hand collection	BRIP 61921 a
-29.03	167.93	12/06/2013	Rosaceae	*Rosa* L.	Dermateaceae	*Diplocarpon rosae*	Hand collection	BRIP 59368 a
-29.04	167.96	18/02/2014	Rosaceae	*Rosa* sp.	Erysiphaceae	*Podosphaera pannosa*	Hand collection	BRIP 61030 a
-29.02	167.96	17/12/2014	Lamiaceae	*Rosmarinus officinalis* L.	Botryosphaeriaceae	*Neofusicoccum parvum*	Hand collection	BRIP 61923 a
-29.02	167.96	17/12/2014	Lamiaceae	*Rosmarinus officinalis*	Incertae sedis	*Phoma* sp.	Hand collection	BRIP 61923 b
-29.01	167.92	25/05/2014	Rosaceae	*Rubus anglocandicans* A.Newton	Phragmidiaceae	*Kuehneola uredinis*	Hand collection	BRIP 61223 a
-29.01	167.92	20/02/2014	Rosaceae	*Rubus anglocandicans*	Phragmidiaceae	*Phragmidium violaceum*	Hand collection	BRIP 61060 a
-29.06	167.96	3/10/2013	Polygonaceae	*Rumex conglomeratus* Murray	Mycosphaerellaceae	*Cercospora* sp.	Hand collection	BRIP 59798 a
-29.02	167.96	2/10/2013	Poaceae	*Saccharum officinarum* L.	Glomerellaceae	*Colletotrichum gloeosporioides*	Hand collection	BRIP 59709 b
-29.04	167.92	18/02/2014	Poaceae	*Saccharum officinarum*	Nectriaceae	*Fusarium* sp.	Hand collection	BRIP 60314 a
-29.02	167.96	2/10/2013	Poaceae	*Saccharum officinarum*	Incertae sedis	*Phoma* sp.	Hand collection	BRIP 59709 a
-29.04	167.99	18/02/2014	Lamiaceae	*Salvia officinalis* L.	Pleosporaceae	*Alternaria alternata*	Hand collection	BRIP 60302 a
-29.05	167.98	3/10/2013	Primulaceae	*Samolus repens* (J.R.Forst & G.Forst.) Pers.	Mycosphaerellaceae	*Stenella* sp.	Hand collection	BRIP 59801 a
-29.05	167.92	1/10/2013	Asteraceae	*Senecio australis* Willd.	Pucciniaceae	*Puccinia lagenophorae*	Hand collection	BRIP 60022 a
-29.05	167.99	3/10/2013	Asteraceae	*Senecio australis*	Pucciniaceae	*Puccinia lagenophorae*	Hand collection	BRIP 60029 a
-29.04	167.96	19/02/2014	Poaceae	*Setaria pumila* (Poir.) Roem. & Schult.	Pucciniaceae	*Uromyces setariae-italicae*	Hand collection	BRIP 61056 a
-29.02	167.93	26/05/2014	Poaceae	*Setaria pumila*	Pucciniaceae	*Uromyces setariae-italicae*	Hand collection	BRIP 61231 a
-29.01	167.94	3/10/2013	Poaceae	*Setaria pumila*	Pucciniaceae	*Uromyces setariae-italicae*	Hand collection	BRIP 60222 a
-29.00	167.93	12/06/2013	Poaceae	*Setaria pumila*	Pucciniaceae	*Uromyces setariae-italicae*	Hand collection	BRIP 59566 a
-29.00	167.93	30/09/2013	Poaceae	*Setaria pumila*	Pucciniaceae	*Uromyces setariae-italicae*	Hand collection	BRIP 60210 a
-29.04	167.99	17/02/2014	Asteraceae	*Sigesbeckia orientalis* L.	Erysiphaceae	*Podosphaera xanthii*	Hand collection	BRIP 61038 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.00	167.92	12/10/2014	Brassicaceae	*Sisymbrium orientale* L.	Albuginaceae	*Albugo candida*	Hand collection	BRIP 61733 a
-29.00	167.92	29/05/2014	Asteraceae	*Smallanthus sonchifolius* (Poepp.) H.Rob.	Pleotosphaerellaceae	*Gibellulopsis nigrescens*	Hand collection	BRIP 61417 a
-29.02	167.97	17/10/2014	Solanaceae	*Solanum betaceum* Cav.	Erysiphaceae	*Golovinomyces orontii*	Hand collection	BRIP 61753 a
-29.03	167.93	12/06/2013	Solanaceae	*Solanum lycopersicum* L.	Pleosporaceae	*Alternaria solani*	Hand collection	BRIP 59358 b
-29.03	167.93	2/10/2013	Solanaceae	*Solanum lycopersicum*	Pleosporaceae	*Alternaria solani*	Hand collection	BRIP 59704 a
-29.03	167.93	19/02/2014	Solanaceae	*Solanum lycopersicum*	Pleosporaceae	*Alternaria solani*	Hand collection	BRIP 60318 a
-29.03	167.93	2/10/2013	Solanaceae	*Solanum lycopersicum*	Davidiellaceae	*Cladosporium* sp.	Hand collection	BRIP 59705 a
-29.05	167.97	21/02/2014	Solanaceae	*Solanum lycopersicum*	Nectriaceae	*Fusarium* sp.	Hand collection	BRIP 60363 a
-29.03	167.93	12/06/2013	Solanaceae	*Solanum lycopersicum*	Amphisphaeriaceae	*Pestalotiopsis* sp.	Hand collection	BRIP 59358 a
-29.02	167.96	17/12/2014	Solanaceae	*Solanum lycopersicum*	Amphisphaeriaceae	*Pestalotiopsis* sp.	Hand collection	BRIP 61924 a
-29.03	167.98	16/12/2014	Solanaceae	*Solanum lycopersicum*	Mucoraceae	*Rhizopus oryzae*	Hand collection	BRIP 61937 a
-29.03	167.93	2/10/2013	Solanaceae	*Solanum mauritianum* Scop.	Erysiphaceae	*Golovinomyces orontii*	Hand collection	BRIP 60206 a
-29.05	167.98	17/10/2014	Solanaceae	*Solanum mauritianum*	Mycosphaerellaceae	*Passalora brachycarpa*	Hand collection	BRIP 61712 a
-29.03	167.94	16/06/2013	Solanaceae	*Solanum mauritianum*	Mycosphaerellaceae	*Passalora brachycarpa*	Hand collection	BRIP 59582 a
-29.02	167.96	19/02/2014	Solanaceae	*Solanum melongena* L.	Glomerellaceae	*Colletotrichum simmondsii*	Hand collection	BRIP 60321 a
-29.05	167.93	4/10/2013	Solanaceae	*Solanum tuberosum* L.	Glomerellaceae	*Colletotrichum coccodes*	Hand collection	BRIP 60086 b
-29.05	167.93	4/10/2013	Solanaceae	*Solanum tuberosum*	Diaporthaceae	*Diaporthe endophytica*	Hand collection	BRIP 60086 a
-29.05	167.93	4/10/2013	Solanaceae	*Solanum tuberosum*	Diaporthaceae	*Diaporthe endophytica*	Hand collection	BRIP 60086 d
-29.05	167.93	4/10/2013	Solanaceae	*Solanum tuberosum*	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 60086 c
-29.05	167.95	13/10/2014	Solanaceae	*Solanum tuberosum*	Incertae sedis	*Monographella cucumerina*	Hand collection	BRIP 61934 a
-29.04	167.92	29/09/2013	Asteraceae	*Sonchus oleraceus* L.	Pleosporaceae	*Alternaria dauciifolii*	Hand collection	BRIP 59692 b

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.04	167.92	29/09/2013	Asteraceae	*Sonchus oleraceus*	Pleosporaceae	*Exserohilum turcicum*	Hand collection	BRIP 59692 a
-29.12	167.96	15/10/2014	Asteraceae	*Sonchus oleraceus*	Pucciniaceae	*Miyagia pseudosphaeria*	Hand collection	BRIP 61747 a
-29.04	167.92	29/09/2013	Asteraceae	*Sonchus oleraceus*	Pucciniaceae	*Miyagia pseudosphaeria*	Hand collection	BRIP 59692 c
-29.03	167.93	12/06/2013	Asteraceae	*Sonchus oleraceus*	Pucciniaceae	*Miyagia pseudosphaeria*	Hand collection	BRIP 59562 a
-29.02	167.94	16/02/2014	Asteraceae	*Sonchus oleraceus*	Pucciniaceae	*Miyagia pseudosphaeria*	Hand collection	BRIP 61036 a
-29.02	167.93	26/05/2014	Poaceae	*Sorghum arundinaceum* (Desv.) Stapf	Pucciniaceae	*Puccinia purpurea*	Hand collection	BRIP 61232 a
-29.01	167.93	29/09/2013	Poaceae	*Sorghum arundinaceum*	Pucciniaceae	*Puccinia purpurea*	Hand collection	BRIP 60003 a
-29.00	167.93	12/06/2013	Poaceae	*Sorghum arundinaceum*	Pucciniaceae	*Puccinia purpurea*	Hand collection	BRIP 59564 a
-29.00	167.93	30/09/2013	Poaceae	*Sorghum halepense* (L.) Pers.	Dothioraceae	*Aureobasidium* sp.	Hand collection	BRIP 59797 a
-29.04	167.99	17/02/2014	Poaceae	*Sorghum halepense*	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60333 a
-29.04	167.99	17/02/2014	Poaceae	*Sorghum halepense*	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60333 b
-29.04	167.93	18/02/2014	Poaceae	*Sorghum halepense*	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60345 a
-29.00	167.93	30/09/2013	Poaceae	*Sorghum halepense*	Clavicipitaceae	*Claviceps africana*	Hand collection	BRIP 59797 b
-29.03	167.99	17/06/2013	Poaceae	*Sorghum halepense*	Nectriaceae	*Fusarium proliferatum*	Hand collection	BRIP 59389 a
-29.04	167.93	18/02/2014	Poaceae	*Sorghum halepense*	Incertae sedis	*Phoma* sp.	Hand collection	BRIP 60345 b
-29.06	167.96	19/12/2014	Poaceae	*Spinifex sericeus* R.Br.	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 61931 a
-29.00	167.93	30/09/2013	Poaceae	*Sporobolus africanus* (Poir.) Robyns & Tournay	Pleosporaceae	*Alternaria* sp.	Hand collection	BRIP 59715 a
-29.01	167.95	19/02/2014	Poaceae	*Sporobolus africanus*	Pucciniaceae	*Uromyces tenuicutis*	Hand collection	BRIP 61049 a
-29.00	167.95	4/10/2013	Poaceae	*Sporobolus africanus*	Pucciniaceae	*Uromyces tenuicutis*	Hand collection	BRIP 60012 a
-29.02	167.92	16/02/2014	Poaceae	*Stenotaphrum secundatum* (Walter) Kuntze	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60331 a
-29.06	167.96	19/12/2014	Poaceae	*Stenotaphrum secundatum*	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 61930 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.04	167.99	24/05/2014	Poaceae	*Stenotaphrum secundatum*	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 61247 a
-29.04	167.92	29/09/2013	Poaceae	*Stenotaphrum secundatum*	Pucciniaceae	*Puccinia stenotaphri*	Hand collection	BRIP 60004 a
-29.06	167.96	19/12/2014	Poaceae	*Stenotaphrum secundatum*	Magnaporthaceae	*Pyricularia* sp.	Hand collection	BRIP 61930 b
-29.00	167.93	20/02/2014	Asteraceae	*Taraxacum officinale* F.H.Wigg.	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 60323 a
-29.04	167.99	17/02/2014	Asteraceae	*Taraxacum officinale*	Pucciniaceae	*Puccinia hieracii*	Hand collection	BRIP 61037 a
-29.02	167.97	3/10/2013	Asteraceae	*Taraxacum officinale*	Pucciniaceae	*Puccinia hieracii*	Hand collection	BRIP 60001 a
-29.01	167.93	29/09/2013	Asteraceae	*Taraxacum officinale*	Pucciniaceae	*Puccinia hieracii*	Hand collection	BRIP 60013 a
-29.05	167.92	1/10/2013	Aizoaceae	*Tetragonia implexicoma* (Miq.) Hook.f.	Nectriaceae	*Fusarium* sp.	Hand collection	BRIP 59703 a
-29.06	167.96	19/12/2014	Aizoaceae	*Tetragonia implexicoma*	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 61928 b
-29.06	167.96	19/12/2014	Aizoaceae	*Tetragonia implexicoma*	Pucciniaceae	*Puccinia tetragoniae*	Hand collection	BRIP 61928 a
-29.05	167.92	1/10/2013	Aizoaceae	*Tetragonia implexicoma*	Pucciniaceae	*Puccinia tetragoniae*	Hand collection	BRIP 59703 b
-29.05	167.92	12/10/2014	Aizoaceae	*Tetragonia implexicoma*	Pucciniaceae	*Puccinia tetragoniae*	Hand collection	BRIP 61735 a
-29.06	167.96	19/12/2014	Aizoaceae	*Tetragonia tetragonoides* (Pall.) Kuntze	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 61929 a
-29.06	167.96	19/12/2014	Aizoaceae	*Tetragonia tetragonoides*	Incertae sedis	*Nigrospora* sp.	Hand collection	BRIP 61929 b
-29.06	167.94	19/12/2014	Aizoaceae	*Tetragonia tetragonoides*	Pucciniaceae	*Puccinia tetragoniae*	Hand collection	BRIP 61950 a
-29.05	167.92	1/10/2013	Aizoaceae	*Tetragonia tetragonoides*	Pucciniaceae	*Puccinia tetragoniae*	Hand collection	BRIP 60023 a
-29.03	167.93	19/02/2014	Meliaceae	*Toona ciliata* M.Roem.	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 60311 a
-29.03	167.93	19/02/2014	Meliaceae	*Toona ciliata*	Incertae sedis	*Stagonosporopsis caricae*	Hand collection	BRIP 60311 b
-29.04	167.96	13/10/2014	Fabaceae	*Trifolium campestre* var. *campestre*	Erysiphaceae	*Erysiphe trifoliorum*	Hand collection	BRIP 61736 a
-29.02	167.97	3/10/2013	Fabaceae	*Trifolium campestre* Schreb. var. *campestre*	Erysiphaceae	*Erysiphe trifoliorum*	Hand collection	BRIP 60221 a
-29.00	167.94	16/10/2014	Fabaceae	*Trifolium campestre* var. *campestre*	Erysiphaceae	*Erysiphe trifoliorum*	Hand collection	BRIP 61756 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.03	167.95	4/10/2013	Fabaceae	*Trifolium campestre* var. *campestre*	Pucciniaceae	*Uromyces trifolii-repentis*	Hand collection	BRIP 60225 a
-29.02	167.93	16/12/2014	Fabaceae	*Trifolium dubium* Sibth.	Erysiphaceae	*Erysiphe trifoliorum*	Hand collection	BRIP 61954 a
-29.02	167.99	17/12/2014	Fabaceae	*Trifolium dubium*	Pucciniaceae	*Uromyces anthyllidis*	Hand collection	BRIP 61955 a
-29.04	167.94	17/12/2014	Fabaceae	*Trifolium pratense* L.	Pucciniaceae	*Uromyces trifolii-repentis*	Hand collection	BRIP 61946 a
-29.03	167.99	20/02/2014	Fabaceae	*Trifolium repens* L. var. *repens*	Glomerellaceae	*Colletotrichum truncatum*	Hand collection	BRIP 60313 a
-29.01	167.93	16/10/2014	Fabaceae	*Trifolium repens* var. *repens*	Mycosphaerellaceae	*Cymadothea trifolii*	Hand collection	BRIP 61749 a
-29.03	167.98	1/10/2013	Fabaceae	*Trifolium repens* var. *repens*	Pucciniaceae	*Uromyces trifolii-repentis*	Hand collection	BRIP 60019 a
-29.03	167.94	28/05/2014	Fabaceae	*Trifolium repens* var. *repens*	Pucciniaceae	*Uromyces trifolii-repentis*	Hand collection	BRIP 61241 a
-29.02	167.99	17/12/2014	Fabaceae	*Trifolium repens* var. *repens*	Pucciniaceae	*Uromyces trifolii-repentis*	Hand collection	BRIP 61956 a
-29.01	167.93	29/09/2013	Fabaceae	*Trifolium repens* var. *repens*	Pucciniaceae	*Uromyces trifolii-repentis*	Hand collection	BRIP 60208 a
-29.03	167.99	21/02/2014	Poaceae	*Triticum aestivum* L.	Davidiellaceae	*Cladosporium cladosporioides*	Hand collection	BRIP 60348 a
-29.03	167.99	21/02/2014	Poaceae	*Triticum aestivum*	Incertae sedis	*Setophoma terrestris*	Hand collection	BRIP 60364 a
-29.00	167.93	30/09/2013	Tropaeolaceae	*Tropaeolum majus* L.	Davidiellaceae	*Acroconidiella tropaeoli*	Hand collection	BRIP 60211 a
-29.03	167.93	2/10/2013	Tropaeolaceae	*Tropaeolum majus*	Erysiphaceae	*Leveillula tropaeolicola*	Hand collection	BRIP 60025 a
-29.04	167.98	18/02/2014	Verbenaceae	*Verbena incompta* P.W.Michael	Glomerellaceae	*Colletotrichum siamense*	Hand collection	BRIP 60310 a
-29.12	167.95	14/10/2014	Verbenaceae	*Verbena incompta*	Erysiphaceae	*Podosphaera xanthii*	Hand collection	BRIP 61744 a
-29.03	167.99	17/06/2013	Verbenaceae	*Verbena incompta*	Erysiphaceae	*Podosphaera xanthii*	Hand collection	BRIP 59584 a
-29.03	167.93	2/10/2013	Fabaceae	*Vicia hirsuta* (L.) Gray	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 60084 a
-29.03	167.93	2/10/2013	Fabaceae	*Vicia hirsuta*	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 60084 b
-29.03	167.93	2/10/2013	Fabaceae	*Vicia hirsuta*	Diaporthaceae	*Diaporthe* sp.	Hand collection	BRIP 60084 c
-29.00	167.94	16/10/2014	Fabaceae	*Vigna marina* (Burm.) Merr.	Incertae sedis	*Phoma* sp.	Hand collection	BRIP 61724 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.01	167.92	15/12/2014	Fabaceae	*Vigna marina*	Pucciniaceae	*Uromyces vignae*	Hand collection	BRIP 61953 a
-29.00	167.94	30/09/2013	Fabaceae	*Vigna marina*	Pucciniaceae	*Uromyces vignae*	Hand collection	BRIP 60213 a
-29.00	167.94	22/02/2014	Fabaceae	*Vigna marina*	Pucciniaceae	*Uromyces vignae*	Hand collection	BRIP 61063 a
-29.00	167.94	16/10/2014	Fabaceae	*Vigna marina*	Pucciniaceae	*Uromyces vignae*	Hand collection	BRIP 61935 a
-29.04	167.94	22/02/2014	Lamiaceae	*Vitex* sp.	Glomerellaceae	*Colletotrichum simmondsii*	Hand collection	BRIP 60351 a
-29.02	167.96	3/10/2013	Vitaceae	*Vitis vinifera* L.	Amphisphaeriaceae	*Pestalotiopsis* sp.	Hand collection	BRIP 59710 a
-29.04	167.99	1/10/2013	Vitaceae	*Vitis vinifera*	Peronosporaceae	*Plasmopara viticola*	Hand collection	BRIP 60215 a
-29.04	167.98	18/02/2014	Vitaceae	*Vitis vinifera*	Peronosporaceae	*Plasmopara viticola*	Hand collection	BRIP 61042 a
-29.00	167.93	20/02/2014	Vitaceae	*Vitis vinifera*	Peronosporaceae	*Plasmopara viticola*	Hand collection	BRIP 61058 a
-29.01	167.95	30/05/2014	Vitaceae	*Vitis vinifera*	Mycosphaerellaceae	*Pseudocercospora epispermogoniana*	Hand collection	BRIP 61257 a
-29.01	167.95	16/06/2013	Thymelaeaceae	*Wikstroemia australis* Endl.	Nectriaceae	*Haematonectria haematococca*	Hand collection	BRIP 59382 a
-29.01	167.95	16/10/2014	Thymelaeaceae	*Wikstroemia australis*	Amphisphaeriaceae	*Pestalotiopsis* sp.	Hand collection	BRIP 61723 a
-29.01	167.95	16/10/2014	Thymelaeaceae	*Wikstroemia australis*	Amphisphaeriaceae	*Pestalotiopsis* sp.	Hand collection	BRIP 61723 b
-29.01	167.95	2/10/2013	Thymelaeaceae	*Wikstroemia australis*	Pythiaceae	*Phytophthora nicotianae*	Hand collection	BRIP 60236 a
-29.12	167.95	14/10/2014	Asteraceae	*Wollastonia biflora* (L.) DC.	Pucciniaceae	*Uromyces wedeliae*	Hand collection	BRIP 61737 a
-29.06	167.97	17/06/2013	Asteraceae	*Wollastonia biflora*	Pucciniaceae	*Uromyces wedeliae*	Hand collection	BRIP 59586 a
-29.06	167.96	3/10/2013	Asteraceae	*Wollastonia biflora*	Pucciniaceae	*Uromyces wedeliae*	Hand collection	BRIP 60000 a
-29.05	167.98	18/12/2014	Asparagaceae	*Yucca aloifolia* L.	Botryosphaeriaceae	*Neofusicoccum luteum*	Hand collection	BRIP 61926 a
-29.00	167.93	20/02/2014	Poaceae	*Zea mays* L.	Pleosporaceae	*Exserohilum turcicum*	Hand collection	BRIP 61050 a
-29.01	167.93	13/06/2013	Poaceae	*Zea mays*	Pucciniaceae	*Puccinia sorghi*	Hand collection	BRIP 59569 a
-29.01	167.93	30/09/2013	Poaceae	*Zea mays*	Pucciniaceae	*Puccinia sorghi*	Hand collection	BRIP 60006 a

Latitude	Longitude	Date	Host Family	Host Species	Target Family	Target species	Collection method	Notes
-29.12	167.95	14/10/2014	Cucurbitaceae	*Zehneria baueriana* Endl.	Glomerellaceae	*Colletotrichum* sp.	Hand collection	BRIP 61700 a
-29.03	167.94	16/06/2013	Cucurbitaceae	*Zehneria baueriana*	Amphisphaeriaceae	*Pestalotiopsis* sp.	Hand collection	BRIP 59363 a
-29.01	167.94	2/10/2013	Cucurbitaceae	*Zehneria baueriana*	Mycosphaerellaceae	*Pseudocercospora* sp.	Hand collection	BRIP 60219 a
-29.01	167.94	25/05/2014	Cucurbitaceae	*Zehneria baueriana*	Incertae sedis	*Uredo zehneriae*	Hand collection	BRIP 61220 a
-29.01	167.95	30/05/2014	Cucurbitaceae	*Zehneria baueriana*	Incertae sedis	*Uredo zehneriae*	Hand collection	BRIP 61246 a

Table 7. Norfolk Island Quarantine Survey - veterinary pest and pathogen testing

Host common name	Host species	Target common name	Target pest or disease family	Target name	Present or absent	Notes
Cattle	*Bos taurus* Linnaeus, 1758	Johne's disease	Mycobacteriaceae	*Mycobacterium avium paratuberculosis*	Absent	Tested using Bovine JD ELISA. Most returned S/P% less than 45% (negative); a few returned = 50% (inconclusive); one returned 80% (positive); however, based on faecal culture, clinical examination and the complete set of serology results from all animals in the herd, final diagnosis determined to be negative for BJD. Tested using IS900 PCR. Results = negative (No DNA consistent with *Mycobacterium avium paratuberculosis*)
Cattle	*Bos taurus*	BVDV	*Flaviviridae*	*Bovine viral diarrhea virus 1*	Present	Cattle 9-12 months old tested using BVD antibody ELISA; overall status of BVDV = present

Host common name	Host species	Target common name	Target pest or disease family	Target name	Present or absent	Notes
Cattle	*Bos taurus*	bovine tuberculosis	Mycobacteriaceae	*Mycobacterium bovis*	Present	The customary technique for detecting bovine TB relies on detection of granulomas in the lungs of slaughtered cattle; Norfolk Island veterinarian Dr Candice Snell reports no granulomas have been detected in slaughtered cattle during her nine-year tenure; TB testing conducted on 155 cattle aged two or older; skin testing used the single intradermal comparative test administered in the mid-neck region described in the OIE manual (2013b); injections used McClintock automatic syringes and tuberculin from AsureQuality; skin thicknesses were measured manually; reactions were assessed using the Bovine Brucellosis and Tuberculosis National Eradication Campaign Standard Definitions and Rules (ABAH, 1984) and the OIE manual (OIE, 2013).
Cattle	*Bos taurus*	brucellosis	Brucellaceae	*Brucella abortus*	Absent	No sign of clinical disease; tested using *Brucella abortus* complement fixation test
Cattle	*Bos taurus*	Q fever	Coxiellaceae	*Coxiella burnetii*	Absent	No sign of clinical disease; tested using Q Fever complement fixation test
Cattle	*Bos taurus*	BLV	*Retroviridae*	*Bovine leukemia virus*	Absent	No sign of clinical disease; tested using Enzootic Bovine Leucosis Antibody ELISA

Host common name	Host species	Target common name	Target pest or disease family	Target name	Present or absent	Notes
Cattle	*Bos taurus*	leptospirosis	Leptospiraceae	*Leptospira hardjo*	Absent	No sign of clinical disease; tested using microscopic agglutination test (MAT)
Cattle	*Bos taurus*	leptospirosis	Leptospiraceae	*Leptospira pomona*	Present	No sign of clinical disease; tested using microscopic agglutination test (MAT); positive result detected in 15 of 161 samples
Cattle	*Bos taurus*		*Herpesviridae*	*Bovine herpesvirus 1*	Present	No sign of clinical disease; tested using infectious bovine Rhinotracheitis antibody ELISA
Cattle	*Bos taurus*		*Bunyaviridae*	*Akabane virus*	Absent	Vector not present
Cattle	*Bos taurus*	anaplasmosis	Anaplasmataceae	*Anaplasma marginale*	Absent	Vector not present
Cattle	*Bos taurus*	babesiosis	Babesiidae	*Babesia bigemina, B.bovis, B.divergens*	Absent	Vector not present
Cattle	*Bos taurus*		*Reoviridae*	*Bluetongue virus*	Absent	Vector not present
Cattle	*Bos taurus*	buffalo fly	Muscidae	*Haematobia exigua*	Absent	Vector absent
Cattle	*Bos taurus*		*Bunyaviridae*	*Crimean-Congo hemorrhagic fever virus*	Absent	Vector not present
Cattle	*Bos taurus*		*Reoviridae*	*Epizootic hemorrhagic disease virus*	Absent	Vector not present
Cattle	*Bos taurus*	heartwater	Anaplasmataceae	*Ehrlichia ruminantium*	Absent	Vector not present
Cattle	*Bos taurus*	screwworm fly	Calliphoridae	*Chrysomya bezziana*	Absent	Not detected in vector monitoring
Cattle	*Bos taurus*	trypanosomiasis	Trypanosomatidae	*Trypanosoma* spp.	Absent	Vector not present
Cattle	*Bos taurus*	warble fly	Oestridae	*Hypoderma* spp.	Absent	Not detected in vector monitoring
Cat	*Felis catus* Linnaeus, 1758		*Retroviridae*	*Feline immunodeficiency virus*	Present	Serology
Cat	*Felis catus*		*Retroviridae*	*Feline leukemia virus*	Absent	Serology

Host common name	Host species	Target common name	Target pest or disease family	Target name	Present or absent	Notes
Cat	*Felis catus*		*Herpesviridae*	*Felid herpesvirus 1*	Present	Examination of clinical records showed presence in cat population
Black noddy, white- capped noddy	*Anous minutus* Boie, 1844		*Orthomyxoviridae*	*Influenza A virus*	Absent?	Only low pathogenic avian influenza present in Australia; tested using influenza A matrix PCR; only detected in feral chickens
Feral goose	*Anser anser* (Linnaeus, 1758)		*Orthomyxoviridae*	*Influenza A virus*	Absent?	Only low pathogenic avian influenza present in Australia; tested using influenza A matrix PCR; only detected in feral chickens
White tern, fairy tern	*Gygis alba* (Sparrman, 1786)		*Orthomyxoviridae*	*Influenza A virus*	Absent?	Only low pathogenic avian influenza present in Australia; tested using influenza A matrix PCR; only detected in feral chickens
Masked booby	*Sula dactylatra* (Lesson, 1831)		*Orthomyxoviridae*	*Influenza A virus*	Absent?	Only low pathogenic avian influenza present in Australia; tested using influenza A matrix PCR; only detected in feral chickens
Mallard	*Anas platyrhynchos* Linnaeus, 1758		*Orthomyxoviridae*	*Influenza A virus*	Absent?	Only low pathogenic avian influenza present in Australia; tested using influenza A matrix PCR; only detected in feral chickens
Red-tailed tropic bird	*Phaethon rubicauda* Boddaert, 1783		*Orthomyxoviridae*	*Influenza A virus*	Absent?	Only low pathogenic avian influenza present in Australia; tested using influenza A matrix PCR; only detected in feral chickens
Purple swamphen	*Porphyrio porphyrio* (Linnaeus, 1758)		*Orthomyxoviridae*	*Influenza A virus*	Absent?	Only low pathogenic avian influenza present in Australia; tested using influenza A matrix PCR; only detected in feral chickens
Sooty tern	*Onychoprion fuscatus* (Linnaeus, 1766)		*Orthomyxoviridae*	*Influenza A virus*	Absent?	Only low pathogenic avian influenza present in Australia; tested using influenza A matrix PCR; only detected in feral chickens
Wedge- tailed shearwater	*Ardenna pacificus* (Gmelin, 1789)		*Orthomyxoviridae*	*Influenza A virus*	Absent?	Only low pathogenic avian influenza present in Australia; tested using influenza A matrix PCR; only detected in feral chickens
Chicken, (feral, domestic)	*Gallus gallus* (Linnaeus, 1758)		*Orthomyxoviridae*	*Influenza A virus*	Present	No sign of clinical disease; tested using avian influenza antibody ELISA; low pathogenic avian influenza considered present as two positive results found (Poultry 41a and Poultry 130a)

Host common name	Host species	Target common name	Target pest or disease family	Target name	Present or absent	Notes
Chicken (feral, domestic)	*Gallus gallus*		*Birnaviridae*	*Infectious bursal disease virus*	Present	No sign of clinical disease; tested using IBD Antibody AGID test; low virulent IBD strain considered present as 51 out of 62 samples found to be positive; result likely to be positive for low virulent IBD strain as no clinical disease symptoms observed
Chicken (feral, domestic)	*Gallus gallus*		*Flaviviridae*	*West Nile virus* (Kunjin subtype)	Absent	No sign of clinical disease; tested using Flavivirus Serogroup Antibody ELISA
Chicken (feral, domestic)	*Gallus gallus*		*Paramyxoviridae*	*Newcastle disease virus*	Present	No sign of clinical disease; tested using Newcastle disease virus haemagglutination inhibition test; positive result detected in six feral chicken samples (Poultry 14e, Poultry 36e, Poultry 63d, Poultry 70d, Poultry 93d, Poultry 135d)
chicken (feral)	*Gallus gallus*		Mycobacteriaceae	*Mycobacterium avium avium*	Absent	Livers showed no external signs of necrotic granulomas; spleens showed no external signs of granulomas and no evidence of granulomas when dissected; guts run and no evidence of lesions
Feral pigeon	*Columba livia* Gmelin, 1789		Mycobacteriaceae	*Mycobacterium avium avium*	Absent	Livers showed no external signs of necrotic granulomas; spleens showed no external signs of granulomas and no evidence of granulomas when dissected; guts run and no evidence of lesions
Crimson rosella, red parrot	*Platycercus elegans* (Gmelin, 1788)		Mycobacteriaceae	*Mycobacterium avium avium*	Absent	Livers showed no external signs of necrotic granulomas; spleens showed no external signs of granulomas and no evidence of granulomas when dissected; guts run and no evidence of lesions

Host common name	Host species	Target common name	Target pest or disease family	Target name	Present or absent	Notes
Wedge- tailed shearwater	*Ardenna pacificus*		Mycobacteriaceae	*Mycobacterium avium avium*	Absent	Livers showed no external signs of necrotic granulomas; spleens showed no external signs of granulomas and no evidence of granulomas when dissected; guts run and no evidence of lesions
Feral goose	*Anser anser*		Mycobacteriaceae	*Mycobacterium avium avium*	Absent	Livers showed no external signs of necrotic granulomas; spleens showed no external signs of granulomas and no evidence of granulomas when dissected; guts run and no evidence of lesions
Mallard	*Anas platyrhynchos*		Mycobacteriaceae	*Mycobacterium avium avium*	Absent	Livers showed no external signs of necrotic granulomas; spleens showed no external signs of granulomas and no evidence of granulomas when dissected; guts run and no evidence of lesions
Purple swamphen	*Porphyrio porphyrio*		Mycobacteriaceae	*Mycobacterium avium avium*	Absent	Livers showed no external signs of necrotic granulomas; spleens showed no external signs of granulomas and no evidence of granulomas when dissected; guts run and no evidence of lesions
Horse	*Equus caballus* Linnaeus, 1758		*Arteriviridae*	*Equine arteritis virus*	Absent	No sign of clinical disease; tested using equine arteritis virus neutralization test
Horse	*Equus caballus*		*Retroviridae*	*Equine infectious anemia virus*	Absent	No sign of clinical disease. Tested using equine infectious anaemia virus antibody AGID test
Horse	*Equus caballus*		*Herpesviridae*	*Equid herpesvirus 1*	Present	No sign of clinical disease; tested using equine herpes 1 virus neutralisation test; non-notifiable EHV considered present as 35 of 42 samples tested positive
Horse	*Equus caballus*		*Reoviridae*	*African horse sickness virus*	Absent	Vector absent

Host common name	Host species	Target common name	Target pest or disease family	Target name	Present or absent	Notes
Horse	*Equus caballus*		*Paramyxoviridae*	*Hendra virus*	Absent	Vector absent
Pig	*Sus scrofa* Linnaeus, 1758		*Flaviviridae*	*Classical swine fever virus*	Absent	Clinically normal; tested using Pestivirus Antibody AGID test (BVD); eradicated from Australia
Pig	*Sus scrofa*		*Circoviridae*	*Porcine circovirus 2*	Present	Clinically normal; tested using porcine circovirus antibody ELISA; positive results detected in 14 out of 30 samples; porcine circovirus associated disease not present in Australia or on Norfolk Island
Pig	*Sus scrofa*		*Herpesviridae*	*Suid herpesvirus 1*	Absent	Clinically normal
Pig	*Sus scrofa*		*Asfarviridae*	*African swine fever virus*	Absent	Clinically normal
Pig	*Sus scrofa*		Leptospiraceae	*Leptospira pomona*	Absent	Clinically normal
Pig	*Sus scrofa*		Coronaviridae	*Alphacoronavirus 1*	Absent	Clinically normal
Pig	*Sus scrofa*		Arteriviridae	*Porcine reproductive and respiratory syndrome virus*	Absent	Clinically normal; tested using porcine respiratory and reproductive syndrome virus indirect ELISA for antibody
Pig	*Sus scrofa*		*Paramyxoviridae*	*Nipah virus*	Absent	Vector not present
Sheep	*Ovis aries* Linnaeus, 1758		Cardiobacteriaceae	*Dichelobacter nodosus*	Absent	No evidence of footrot or clinical disease
Sheep	*Ovis aries*		Mycobacteriaceae	*Mycobacterium avium paratuberculosis*	Absent	No sign of clinical disease; tested using Ovine Johne's disease AGID
Sheep	*Ovis aries*		*Flaviviridae*	*Bovine viral diarrhea virus*	Absent	No sign of clinical disease; tested using pestivirus antibody AGID test (BVD)
Sheep	*Ovis aries*		*Reoviridae*	*Bluetongue virus*	Absent	Vector not present
Sheep	*Ovis aries*		Bunyaviridae	*Nairobi sheep disease*	Absent	Vector not present
Dog	*Canis familiaris* Linnaeus, 1758		*Rhabdoviridae*	*Rabies virus*	Absent	No sign of clinical disease; rabies fluorescent antibody virus neutralisation test; results less than 0.5 IU/mL

Host common name	Host species	Target common name	Target pest or disease family	Target name	Present or absent	Notes
Dog	*Canis familiaris*		Brucellaceae	*Brucella canis*	Absent	No sign of clinical disease; Brucella Rose Bengal Rapid Plate Test conducted on neat serum

Archiving the Scientific Legacy of Dr. Alec Costin

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Alec Costin is one of Australia's foremost ecologists, internationally respected for his pioneering work into the soils, hydrology and vegetation of the Australian alpine regions. Advisor to governments and their agencies, he was instrumental in the conservation of the Australian Alps. Alec's field notes, data sheets and Kodachrome slides, a record of the Alps in the 1950s and 60s, are important historically and provide an important resource to interpret change in vegetation and landscapes in the Australian Alps. The University of Melbourne, funded by the Australian Alps National Parks, will catalogue and archive these materials, so future generations of scientists and historians can easily gain access to them.
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DR. ALEC COSTIN

Dr. Alec Costin is regarded as the father of alpine ecology in Australia. A widely-respected scientist, conservationist and exceptional scientific communicator, Alec was a prolific writer and published many scientific papers. Alec remains a mentor and inspiration to many ecologists today and his records are an invaluable resource for future conservation of the Alps.

Alec started his career in alpine ecology in 1946 with the Soil Conservation Service of NSW. He then, through research scholarships, studied mountain environments in other parts of the world. When he returned to Australia, Alec had a short working period in the Victorian Alps before taking up a position in 1955 with CSIRO based in NSW. In this role, Alec continued to focus his research on all aspects of alpine ecology.

Alec's research on soils, hydrology and vegetation were ground-breaking and were critical for the protection and conservation of the Australian Alps. He successfully lobbied politicians, government departments and research institutions to protect the Alps and without his efforts the Alps would not be conserved as they are today.

Alec published widely but his first major work in 1954, *The Ecosystems of the Monaro*, was one of the first regional studies describing the area's ecology, ecosystems and management (Costin, 1954). The study covered over 1.5 million hectares and is a keystone publication still in use today. Alec was also co-author of 'A report on the Condition of the High Mountain Catchments of New South Wales and Victoria', which was published by the Australian Academy of Science in 1957. This report identified the massive scale of the soil erosion problem and its impact on catchment stability. It highlighted the incompatibility of burning and grazing practices with high altitude environments and Alec successfully argued that Alps catchments were more valuable for water catchment than for grazing. This document, along with Alec's activism and lobbying, was a turning point for the conservation of the Australian Alps.

In the years that followed removal of grazing, Alec established research into many critical issues with Dane Wimbush. Together, Alec and Dane investigated the impacts of grazing which established that sheep and cattle were selectively grazing forbs, reducing the diversity of flora and impacting soil stability. This work also found that once the forbs and grass inflorescences were consumed, animals quickly

lost weight on a diet of mainly mature snowgrasses (Wimbush and Costin, 1979a).

Alec and Dane established transects in alpine and sub-alpine areas to measure recovery after the grazing had stopped. The transects were measured annually for twenty years and have been maintained ever since (Wimbush and Costin, 1979b and c). They are an incredibly valuable resource for tracking long-term vegetation trends.

Alec's field notes and data sheets are historically important, as is his large number of Kodachrome slides which are a record of the Alps in the 1950s and 1960s. These slides provide an important resource which may be used to interpret change in vegetation and landscapes in the Australian Alps (Figures 1, 2 and 3).

THE ARCHIVING PROJECT

The Australian Alps National Parks has funded a project to document and preserve these materials, with the help of Alec, to create an archive so future generations of scientists and historians can easily gain access to them. The University of Melbourne's eScholarship Research Centre (ESRC) has been engaged to conduct the project. The Centre started life in 1985 as the Australian Science Archives Project and has been responsible for ensuring material from many key Australian scientists have found appropriate archival homes (McCarthy, Morgan and Daniels, 2016). Like those earlier archiving projects, this project will focus on the conservation, protection and documentation of the material Alec compiled over his career, and will make the collection discoverable through the web publication of a guide to the collection. As the digitisation of archival materials (at digital preservation quality) is now more cost-effective than it has ever been, the project will seek to make digital facsimiles of as much of the collection as is feasible. Digitised materials are better suited for annotation and data extraction thus ensuring they are better suited to both existing and future alpine research.

The archival process involves several clearly defined activities that track the story of the materials from the world in which they were created, assembled and used, to the world of the archives. As archived material, Alec's work will be more widely discoverable and useful for a wide variety of research purposes.

The first project phase involves on-site surveys and negotiation to determine the extent of the materials. This includes noting time-span; content areas (especially those topics well represented); quantity of materials; condition of the materials; and document forms. The documentation of this phase often includes digital photographs of the materials as found (Figure 4) and summary reports. Where possible, audio (and/or video recordings) of Alec Costin talking about the materials and reflecting on their context and value will be captured. These are useful for both the archivists and future researchers. This initial survey work was undertaken between 2016 and 2018.

Once the decision is taken to go ahead with the archival project, the second phase involves formally registering the materials designated for the collection. Again, this process documents the materials as found, preserving as much of the initial context, structure and arrangement as possible. In addition to the required formalised description (standardised archival metadata), digital photography, audio and video provide useful additional evidence of the process. A key outcome of this phase (described as 'Accessioning' by the ESRC) is the systematic labelling and numbering of all containers that hold the material. This allows the collection to be safely moved from its found location to a place better suited to the next phase of the archival process. It is also at this point that enough information should be available about the nature of the materials to determine the range of possible long-term archival repositories that would be interested in maintaining the collection. The 'Accessioning' of Alec's collection began in August 2017 with a focus on material that was already stored at the Office of Environment and Heritage in Queanbeyan (Figures 4 and 5). The archival team included Associate Professor Gavan McCarthy of the ESRC and Dr. Elizabeth James from the Herbarium of the Royal Botanic Gardens Victoria. The remainder of the accessioning was left to Wright and McDougall and the bulk of the collection was ready for transport to the ESRC in March 2018 where the next phases of the work would be undertaken.

In summary, the goal of the final phase is the documentation of the materials at the 'Inventory' level. This is the unit of documentation that will be utilised in the guide to the collection and needs to include enough detail to enable researchers of the future to discover relevant materials. The source (or provenance) of each 'Inventory Item' is systematically registered during this phase and each Inventory Item is linked with its relevant Accession unit. Later, Inventory Items will be grouped into Series to help researchers find related materials. A summary of the collection as a whole will then be prepared, including the story of the journey of the materials into their archival form. If digitisation is to be undertaken, it is best done once the Inventory Items have been

Figure 1. Photo comparison Kosciuszko National Park, Gungartan Range – 60 years of recovery.

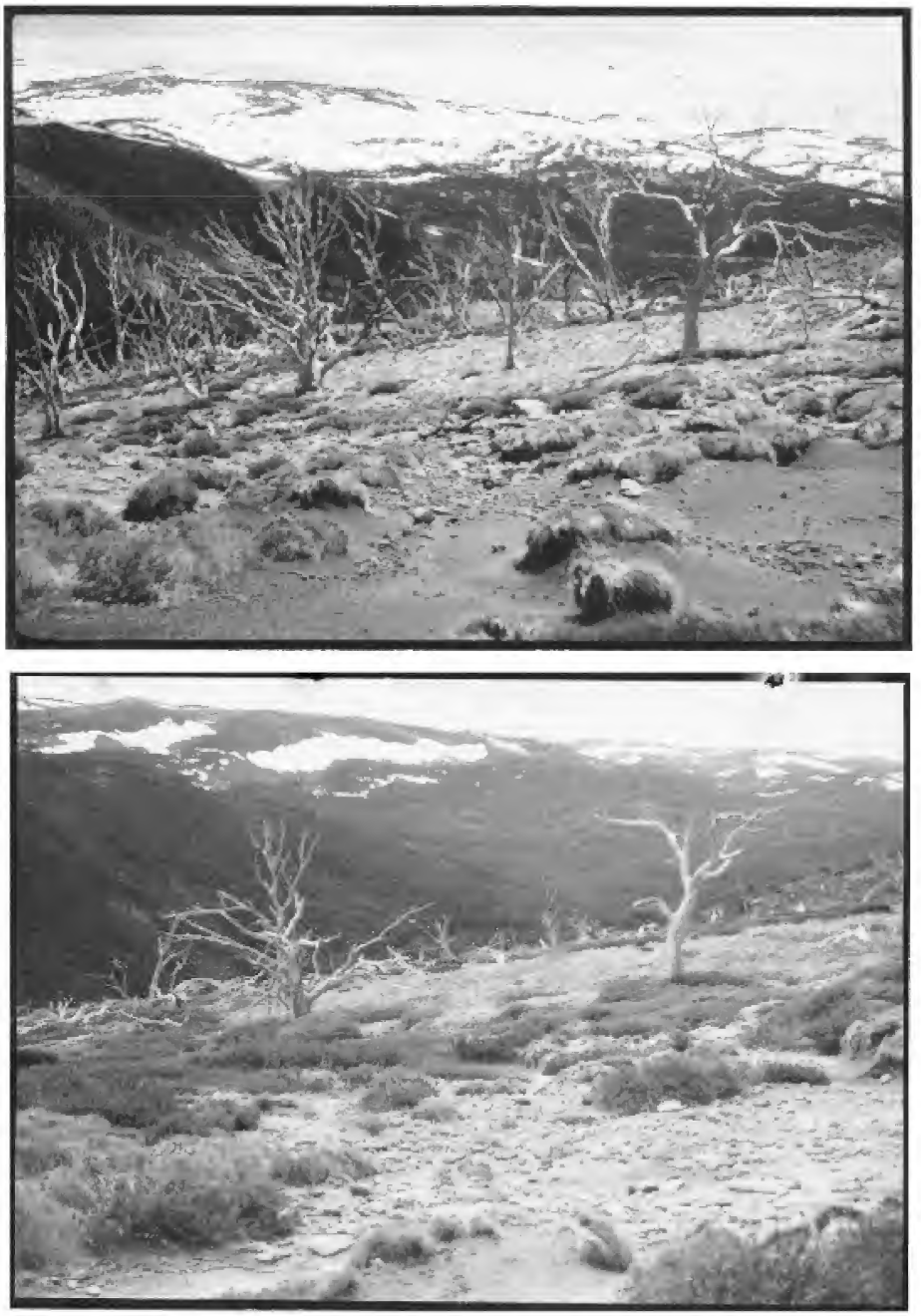

Figure 2. Photo comparison Kosciuszko National Park, burnt snowgum woodland 21 years of recovery.

Figure 3. Photo comparison at Carruthers Peak – 55 years after the extensive Soil Conservation Service rehabilitation program in the alpine area of Kosciuszko National Park.

Figure 4. The Costin Collection as found.

Figure 5. Material sorted in to type for archiving

registered and defined. The final activity in this process is the publication of a web guide.

The undertaking of this project has provided a unique opportunity to conserve, protect and make accessible a significant collection from one of Australia's eminent scientists. To be able to do this with Alec means the context of and background to the collection can also be recorded, the opportunity of which is lost in so many archival projects. We have recently lost a number of Australia's outstanding alpine ecologists and their decades of knowledge in the passing of Roger Good, Dane Wimbush and Max Gray. The ability to involve Alec will make the collection even more valuable and useful. Having Alec's material protected in the long-term and accessible for research of future alpine ecologists is critical for the ongoing protection of the Australian Alps.

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Karst Values of Kosciuszko National Park
A Review of Values and of Recent Research

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There are seven areas of karst within Kosciuszko National Park ranging from the sub-alpine to montane forest conditions. Two, at least, Yarrangobilly and Cooleman Plains, are of national – perhaps international - significance. This paper amplifies earlier discussions of the heritage significance of the Kosciuszko karsts but does not greatly alter the earlier assessments. The highest levels of significance result from cultural values relating to use by indigenous people and to modern scientific research on karst processes.
Cooleman Plains, Yarrangobilly and perhaps Indi were used by indigenous people for dispositional burials, occupation, and perhaps parietal art, for over 10,000 years. The caves in the headwaters of Jounama Creek to the north of Black Perry Mountain have not been rigorously studied for their indigenous or other values because of their extreme inaccessibility within the Bogong Wilderness but their proximity to the Bogong bora rings and many Bogong Moth sites makes them a likely site.
Cooleman Plains and Yarrangobilly have been the subject of internationally published research in the fields of karst processes with publications of the late Joe Jennings being cited in texts more than four decades later. Micro-erosion meter sites established in 1984 are still being monitored and paper requests still being received. More recently, the world's first studies of the impacts of fire on karst processes in and above caves are being undertaken at Yarrangobilly (and on other NSW karsts) with several publications arising.

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INTRODUCTION

The significance and values of the karst resources of Kosciuszko National Park (KNP) have been previously summarised in Nicoll and Brush (1976), Spate and Houshold (1989), Good (1992), Spate (2004) and Spate and Gough (2016). Since those times little has changed in our knowledge of the karst systems except in relation to their karstic, biological and cultural values. Cave faunal surveys reported in Eberhard and Spate (1995), further work by Spate (unpublished) and reviews by Thurgate et al (2000, 2001a, 2001b) have greatly refined our knowledge in this regard most markedly in relation to Yarrangobilly and Cooleman Plains. Recent work at Yarrangobilly on various karst processes, including the impacts of fire on such processes, and on palaeontological and archaeological values as well as on the age of the limestones at Yarrangobilly and Cooleman Plains (Treble et al 2016, Rutledge 2018, this volume, Tadros et al. 2018) are discussed below. Ellis and Halbert's (2016 eds) excellent book, Caves and Karst of Yarrangobilly, provides much information on all aspects of Yarrangobilly.

Karsts are landscapes formed on rocks with a greater degree of natural solubility than is commonly found. In the case of Kosciuszko these are all limestone (although dolomite does occur at Cooleman). Karst areas are characterised by gorges, caves, deranged hydrological systems and many fascinating small-scale karst features such as various forms of

karren. Karst systems and processes are produced by a complex interplay of geology, soils, biology, climate and time (Kiernan 1988, Hamilton-Smith et al. 1998). Over the last three or four decades the importance of karst has been increasingly apparent as has the dimensions and importance of their non-geologic values. This is perhaps best and dramatically demonstrated, by the increasing world-wide acceptance of the IUCN Guidelines for the management of caves and karst, largely developed by Australians (Watson et al 1997). These guidelines are already in use by NPWS for steering plans of management in parks across the State. The management objectives and actions identified in the Kosciuszko Karst Area Management Plan (KAMP; OEH 2015) are consistent with these guidelines.

The 2006 Plan of Management for Kosciuszko National Park (NPWS, 2006) identifies seven management units within the park for special management prescriptions as they are considered "to contain places and values of exceptional significance". These include the Cooleman Plain and Yarrangobilly karst areas; the alpine landscapes of the Main Range; and the ski resort areas. At Kosciuszko the values and significance of karst are recognised in the KNP National Park Plan of Management 2006; KNP Geodiversity Action Plan 2012-17 and Kosciuszko Karst Area Management Plan 2015 (KAMP). The latter two are as yet unpublished. There is also a Speleological Reference Group consisting of park staff and community members experienced in cave and karst matters.

The seven karst areas within Kosciuszko have a wide range of geological, geomorphological, biological and recreational values in addition to their cultural significance to both indigenous people and to later arrivals. At least two of the areas, Cooinbil and Cowombat Flat, would appear not to have cave systems – at least enterable by humans – but they have much of interest. Carne and Jones (1919) reported additional limestone areas (notably on the Main Range) but these seem to be errors or misreporting of locations. These areas are not listed or are dismissed in Lishmund et al. (1986). The KAMP defines seven areas on the basis that limestone outcrops almost continuously from Cooleman Plain down Cave Creek to the Goodradigbee River. (e.g. Matthews, 1985; CSS, 2009). Some of the upper Goodradigbee limestones are of a different group (in the Pocket Formation) and have previously been recognised as different (for example, as the Wilkinson Limestone) below the waterfalls on Cooleman Creek (Pickett, 1982). Further geological research is required here.

The seven areas are of local, regional, state or national significance – some would argue that some features are of international significance – predominantly from a cultural perspective in the field of scientific endeavour. Whether these areas would ever reach the level of the World Heritage criterion of "outstanding universal value' is very much open to discussion. However, we believe that Cooleman Plains and Yarrangobilly are of international significance because of their place in the scientific literature.

In addition to the karsts developed in soluble rocks, there a number of small-scale pseudokarst features, chiefly in granite, scattered across the Park including boulder caves along the Snowy and Ingeegoodbee Rivers (Finlayson 1981). The ephemeral caves in ice and snow should also be mentioned in passing (Halbert and Halbert 1972). These sometimes contain many forms analogous to 'traditional' karst caves – and attract the interest of an additional class of visitors to those who utilise other caves within the Park.

All of the karst and pseudokarst areas within the Park have very considerable value for interpretation especially in regard to landscape development and evolution, karst processes, palaeontology and archaeology. This is especially true of Yarrangobilly and Cooleman Plains (and perhaps Cooinbil because of its easy access).

GENERAL DISCUSSION

The seven karst areas (excluding the 'pseudokarst' granite and ice caves) within the Park (Fig. 1) are all developed within Silurian or Devonian limestones or their derivatives (Owen and Wyborn 1979, Wyborn et al. 1990), Spate (2003) and Spate and Gough (2016) (Map 1). Nicoll and Brush (1976) and Brush (2016) provide details on many of the significant caves especially at Yarrangobilly Spate and Gough, Treble et al. and Brush (chapters 5, 6 and 11, respectively, in Ellis and Halbert 2016) provide additional information on aspects of the Yarrangobilly karst area.

All the areas are within the Lachlan Fold Belt but there are significant differences from a geological perspective (see the introductory chapters in Lishmund et al 1986). These differences do not concern us from a karst perspective. A grouping of the areas is discussed below – and each area is discussed in detail. It is obvious that the areas are distinct from other NSW karst areas in that they lie near the crest of the Eastern Highlands – the so-called Great Dividing Range – and are in alpine, sub-alpine or montane environments (for further discussion of their geomorphic settings see Houshold et al. 1986). Cooleman and Yarrangobilly have outstanding above-ground

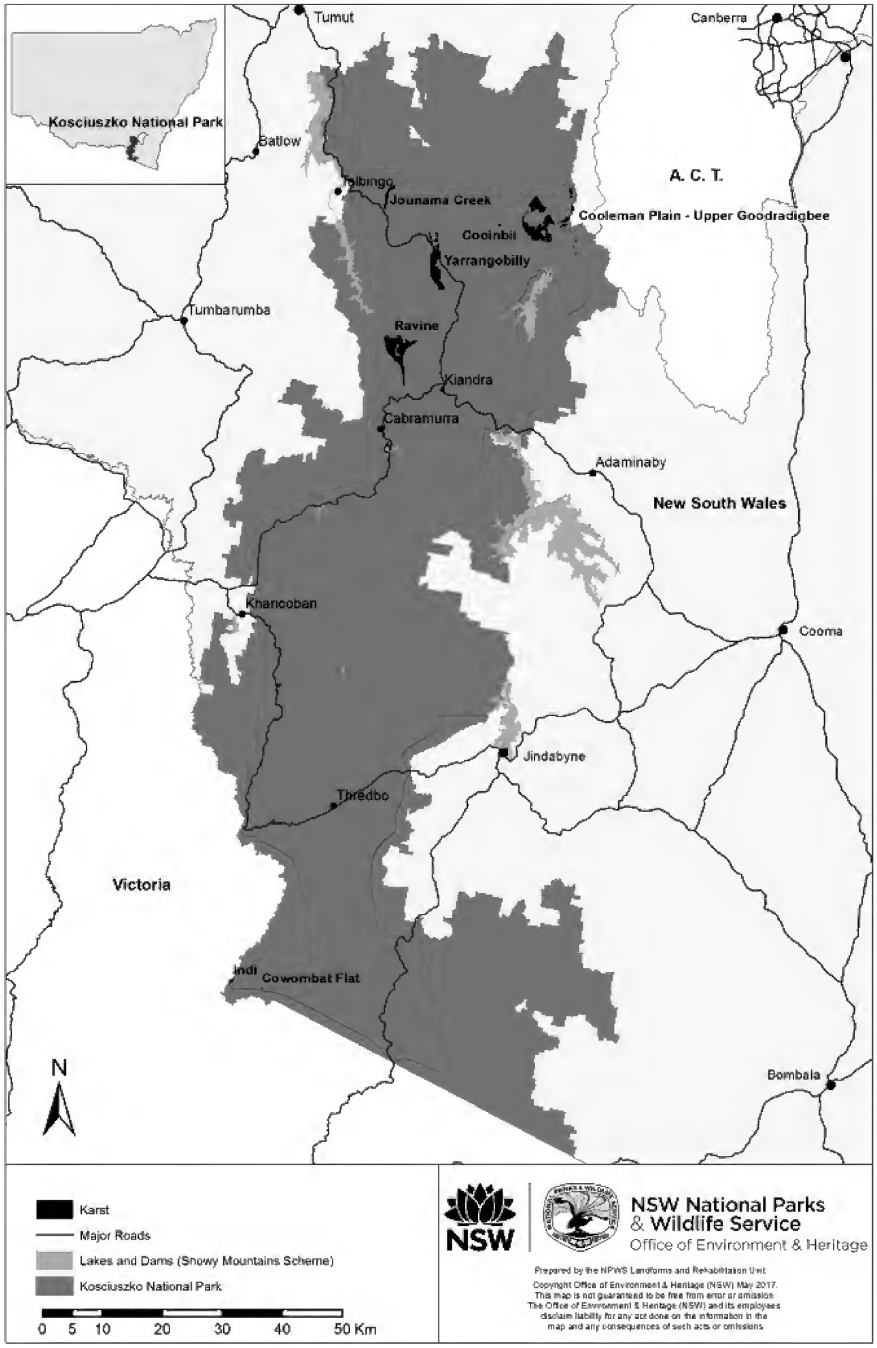

Figure 1. The seven karst areas in Kosciuszko National Park

Karst area	Period	Epoch	Unit Name
Cooleman Plains	Silurian	Wenlock-Pridoli	Cooleman Limestone
Upper Goodradigbee	Silurian	Ludlow-Llandovery	Pocket Formation
Cooinbil	Silurian	Ludlow-Llandovery	Peppercorn Formation
Yarrangobilly	Silurian	Wenlock Pridoli	Yarrangobilly Limestone
Jounama Creek	Silurian	Wenlock/Llandovery?	Ravine Beds
Indi	Silurian	Llandovery??	Cowombat Siltstone
Cowombat Flat	Silurian	Llandovery?	Cowombat Siltstone
Ravine	Devonian + Quaternary	Emsian + Quaternary	Lick Hole Formation + unnamed

Table 1. The geological setting of the Kosciuszko karst areas.

karst landscapes, particularly caves, gorges and rising streams.

The seven areas considered are shown in Table 1.

They all have varying proportions of sub-alpine grasslands and forests and montane forest communities. Ravine has been highly disturbed by grazing, fire and weed invasion and appears to be somewhat of a rain shadow area. Cooleman has been extensively disturbed by past grazing of cattle and by rabbits. Recently, wild horses have been having major impacts at Cooleman including on karst features, as well as swamps and other sensitive vegetation types, and physical damage to cultural heritage items (Office of Environment and Heritage 2016 – hereafter OEH)

Each of the areas has distinctive characteristics in terms of topographic setting, broad vegetation type and degree of karstification and degree of karst hydrological integration. Only two areas, Cooleman and Yarrangobilly, have been surveyed for their dependent cave invertebrate populations (Eberhard and Spate 1995) although only at a reconnaissance level. Both these areas have endemic plant species. Some sites, particularly Yarrangobilly and, to a lesser extent, Cooleman have significant subfossil deposits including such species as Smokey Mouse (*Pseudomys fumeus*) and the Thylacine (*Thylacinus cynocephalus*) (Spate, 2006).

As with many other karst areas under the management of the NSW National Parks and Wildlife Service all the seven karst areas are within Kosciuszko National Park or have their entire catchment areas within Service estate. This makes their management easier from the viewpoint of total catchment protection. However, the remoteness and ruggedness of some of the karst areas also presents management challenges.

The significance of the seven karst areas ranges from national to local. We argue that for Cooleman and Yarrangobilly that there are aspects that may be of international significance based on their scientific importance. Given that whole Park is internationally recognised as a UNESCO Man in the Biosphere Reserve and nationally as a result of its listing on the Register of the National Estate extensive discussion of significance may not be relevant here. The significance of individual areas is discussed below disregarding UNESCO and National Estate listings.

In general, the suite of karst areas have outstanding or representative at state to national scale, and maybe beyond, significance for their geomorphology, their landscapes above and below ground, and for their flora and fauna and indigenous connections.

Table 2 (updated from Spate and Houshold 1989) gives an assessment of the scientific and other significance of each of the seven karst areas.

The karst areas are sites that are within the Park and are thus dependent on the Park in all ways including their geographic location. They are all, in the proper sense of the word, "unique". But, they have a range of values from local to international. However, the holistic nature of karst systems, being part of complex biophysical processes (and time), means that proper management of karst requires that environmental conditions remain essentially unchanged through time – within the bounds of natural environmental variability. However, definition of the time scale over which natural variability is to be considered is can be very problematic – even conditions in, and thus management operations of, two closely related caves such as Jersey and Jillabenan at Yarrangobilly relate to very different time scales ranging from 100 to 106 years. Such time scales are markedly different to most natural area management regimes and certainly much longer than political cycles or theoretical enthusiasms.

Work by Osborne (2001a, b) has brought into question whether the fundamental tenet of karst management – that of whole catchment management as an

Karst area	Geology	Geomorphology	Hydrology	Sedimentology	Palaeontology	Archaeology	Botany	Zoology	History
Cooleman Plains									
Representativeness	2	2	1	3	3	2	3	2	3
Outstandingness	2	2	2	3	3	3	4	2	3
Cooinbil									
Representativeness	3	4	4	4	*	*	*	*	*
Outstandingness	4	4	4	4	*	*	*	*	*
Yarrangobilly									
Representativeness	2	2	2	3	2	2	3	3	2
Outstandingness	2	2	2	3	3	3	3	2	2
Jounama Creek									
Representativeness	2	4	4	4	*	*	*	*	*
Outstandingness	4	4	4	4	*	*	*	*	*
Indi									
Representativeness	3	3	4	3	4	4	*	4	4
Outstandingness	4	4	4	4	4	4	*	4	4
Cowombat									
Representativeness	4	4	4	4	*	*	*	*	*
Outstandingness	4	4	4	4	*	*	*	*	*
Ravine									
Representativeness	3	3	4	3	4	*	*	*	*
Outstandingness	3	3	4	4	4	*	*	*	*

1 = international; 2 = national; 3 = regional; 4 = local; * = data deficient

Table 2. Degree of scientific and cultural significance of the eight karst areas within Kosciuszko National Park (after Spate and Houshold 1989 and Spate 2004).

appropriate management response – given that many Eastern Australian karst areas may have developed from rising groundwater rather than sinking surface waters. His finding may not relate to any of the karst areas within Kosciuszko; however. it is worth remembering that simple, and long-held management paradigms, must be questioned from time to time. Osborne (1996) has also pointed out the important role of sulfide mineralisation in the development of caves at Yarrangobilly and perhaps Cooleman. Both these concepts reinforce the comments above about timescales and environmental variability.

Cooleman and Yarrangobilly have had considerable research emphasis largely concentrating on cave documentation, karst geomorphology and hydrology, terrestrial vegetation and cave-dependent fauna and more lately on the impacts of fire on karst processes. There is much more survey and documentation work that could be done in these – and the other areas. Particular issues include terrestrial flora, subterranean fauna, hydrological relationships and landscape evolution. Recent work at Yarrangobilly has also evidenced the important of karst sites for palaeontology and archaeology (Aplin et al. 2010, Ford and Aplin 2010).

The Kosciusko National Park Fire Management Strategy 2008 – 2013 acknowledges the potentially adverse impacts of fire on the natural, cultural and

recreational values of the Park, including its karst environments. It specifically addresses karst management in relation to prescribed burning and wildfire suppression. Further management guidelines and policies are set out in the various documents referred to above.

Cooleman Plains

The Cooleman Plains Management Unit consists of the Cave Creek catchment in its entirety as well parts of the Upper Goodradigbee River and of the Peppercorn and Tinpot Creeks. Part of the area lies within the Bimberi Nature Reserve and the Bimberi Wilderness Area. It contains broad open plains, significant gorges and caves as well as many other karst forms such as dolines, stream sinks and risings and karren features.

A good general description of the area is found in the Cooleman Plains Karst Area Management Plan adopted in July 1987 as a supplementary plan to the Kosciusko National Park Plan of Management and formalised in the 1988 Amendments to that Plan and in the KNP Karst Area Management Plan.

The area includes the very popular car-based attraction of Blue Waterholes (the largest karst spring in the mainland part of the Eastern Highlands), a number of spectacular gorges, many caves and other karst features. It is a popular walking and horse-riding area and includes a number of sites of significance to both Aboriginal and European cultural heritage. Perhaps the most important of these is the Coolamine Homestead complex. Grazing continued on part of the area until 1977.

Spate and Houshold (1989) argued that aspects of Cooleman Plains had levels of significance ranging from international to local in a number of fields of scientific endeavour. Others argued, in discussion at the First Fenner Conference, for example, that the grounds for international significance were overstated. Spate and Houshold argued that the quality and range (and citations) of the geomorphological and hydrological research conducted by the late Joe Jennings and others gave credence a view supporting international significance. The gorges, blind valleys, springs, caves and other karst features, including the probable exhumed Devonian karst features around "Bung Harris Dam", are an important part of the suite of Australian karst landscapes.

Thus, this aspect of the significance of Cooleman Plains rises from regional to national. Table 2 above gives an overall assessment of scientific significance of Cooleman.

Since 1989, work conducted by Eberhard and Spate (1995) and reviewed in Thurgate et al. 2001a, 2001b, has demonstrated the presence of a number of aquatic crustaceans of considerable significance. These aid in our understanding of the evolution of the fauna of continental Australia (George [Buz] Wilson, Australian Museum, personal communication).

There is a rich archaeological significance at Cooleman with many artefact scatters, several burial sites; parietal art has been reported in the past (Spate 1997).

There is much more to Cooleman Plains than scientific values as is evidenced by the number of visitors – including many who have come back frequently over many decades. It is important for recreation – active and passive, as a destination, for its indigenous and European heritage of occupation, grazing, use of caves and as a gateway to other parts of the Park notably the Bimberi Wilderness and Namadgi National Park. Its significance for these sorts of values is at a least a regional level.

Its values are dependent on the maintenance of its natural values on one hand and on the various cultural features on the other. It provides both a significant destination and access route – features which render it susceptible to both "being loved to death" and to being over-managed. Keeping the Blue Waterholes area in a natural condition but allowing heavy use is a particular challenge.

Cooinbil

The tiny Cooinbil karst (<2 ha) is an interesting site, containing solutional features such as karren, have formed on a small limestone outcrop. Although located very near the intensely used Cooinbil Hut horse use area it is not disturbed by current park use. It is of local significance.

Yarrangobilly

The Yarrangobilly Management Unit covers an area of 18,211 ha and includes the large Yarrangobilly karst area. It is delineated by the catchment of the Yarrangobilly River above Little Glory Hole Creek. Parts of the Management Unit lie within the Bogong and Goobarragandra wilderness areas. It also includes the Jounama Pine Plantation (currently being harvested and returned to native species) which partially overlies the karst. An enigmatic area, to the west of the Jounama Pine Plantation, is of uncertain hydrological affinities and lies in the Jounama Creek catchment (rather than that of the Yarrangobilly River).

The Yarrangobilly karst area can be arbitrarily split into three broad zones based largely on the degree of disturbance, visitor use and management intensity. From south to north these are:

1. The Visitor Services Zone (Yarrangobilly Show Caves Precinct; up to the north side of Harriewood Gorge and including Grotto and Castle Caves).

This area contains a range of recreational opportunities range from guided cave tours, swimming in the thermal pool and caving, to sightseeing, picnicking camping, walking and fishing.

2. The so-called Yarrangobilly "plateau" (from Harrie Wood Gorge to the north side of Wombat Creek (the creek-line along which Yans Crossing Fire Trail runs) – including all drainage to Coppermine Cave). Cave access is tightly controlled; the area is subject to little disturbance (other than the presence of the Snowy Mountains Highway). The area including the former Yarrangobilly racecourse, Garnet Hill, Yarrangobilly Village, Jounama Pine Plantation and a small area in the headwaters of Jounama Creek around GR 305 567 (Yarrangobilly 1:25,000) outside of the Yarrangobilly Management Unit.. Much is intensely disturbed, heavily used for recreation and for pine harvesting and subsequent rehabilitation.

However, the area is considered in one block in the discussion below.

There are several hundred caves in the area as well as a large number of other karst features (such as blind valleys and pinnacle fields like "The Tombstones"), endemic plants and animals (including rare and endangered species, Downing and Oldfield (2002) and a considerable number of European cultural features. The number of Aboriginal sites and cultural features appears to be limited although this is probably an artefact of lack of knowledge rather than actual situation. This is changing through better communication with the Local Aboriginal Land Council and with identification of whole-of-landscape values as well as specific sites.

Sir Terence Murray reported finding numerous Aboriginal bones and removed a skull from a cave in 1839 (Mowle, 1891; Spate, 1997). Aboveground, the presence of numerous stone flakes in Rules Creek Valley is indicative of an aboriginal campsite (NPWS, 2000). More recently, excavations in Drummond Cave (Y259) unearthed burnt bones and stone artefacts, which indicate people visited the site on several occasions over the time interval of 9700-9120 years before present. This more than doubled the previously known 4500 year history of occupation above 1000 m ASL in the Australian Alps (Aplin et al., 2010; Ford and Aplin, 2010).

The scientific significance of the Yarrangobilly karst area is summarised in Table 2. The levels range from local to national. The cultural significance is unquestioned with similar levels of significance. These assessments have been reinforced most recently by NPWS (2000). There are a suite of rare and endangered plant and animal species here as well as limestone-endemic species such as the recently confirmed blackthorn species, Bursaria calcicola and B. spinosa var. lasiophylla. The presence of this latter variety is of considerable interests as it is the host for the Bathurst Copper Butterfly, Paralucia spinifera, and its associated ant, Anonychomyrna itinerans. If the Butterfly is confirmed at Yarrangobilly it will be a very large extension of range for this rare and endangered species. There are significant subfossil deposits within some of the caves and, as stated above, there are significant archaeological and palaeontological sites.

The area has very considerable aesthetic and recreational significance. The gorges, blind valleys, springs, caves and other karst features are an important part of the suite of Australian karst landscapes. A very large number of recreational activities are undertaken within the Management Unit. The area is recognised nationally as a site of very great recreational value (Davey 1984).

Jounama Creek/Black Perry Mountain

The area consists of a north-westerly extension of the Silurian Yarrangobilly Limestone in the valley of Jounama Creek and its tributary Cave (or Clive) Creek. Most of the carbonate rocks are a highly metamorphosed and mineralised ridge which forms Black Perry Mountain. A single small, and unusual, cave is found high up on the eastern flank of the ridge and 15 small caves are found in the Cave Creek valley to the north of Black Perry. Other areas of limestone may exist on Jounama Creek below the Cave Creek junction at Pether's Lode. The area is within the Bogong Wilderness and is accessed by foot from the Snowy Mountains Highway.

The significance of the karst and caves is probably little more than local although the cave on Black Perry may rank more highly than this. The karst and associated adjoining skarn deposit is uncommon in NSW and is of state to national significance. At least one mineral present here (babingtonite) is only known from two other localities in Australia (Gole 1981, Mindat, 2014). The caves in caves along Cave Creek may have Indigenous values.

Indi

This small area consists of two small limestone lenses north of McHardies Flat on the upper Murray River. There is one limestone outcrop further north with one high level, albeit small cave. They are accessed via 4WD tracks from Victoria (with little prospect of these being closed) and is essentially isolated in winter. Indi is within the Pilot Wilderness

The area is unusual in that the 13 small caves are perched on a small terrace 10-15 m above river level. It is not known if this bench is structural or a river ter-

race cut in the limestone. The caves appear to be hydrologically isolated by thick clayey, possibly glacial outwash sediments in the lower parts of the caves and thus small ephemeral lakes exist in wetter periods.

The significance of the Indi karst is local to regional (Table 2). Although some research on the geomorphology of the karst and its regional setting has been conducted nothing has been published.

The regional level of significance here arises from the perched watertable, the possible palaeoclimatic significance of the clay sediments and from the associations with Aboriginal prehistory (Spate 1997). The area has not been adequately surveyed for its biospeleological attributes – especially aquatic invertebrates.

Cowombat Flat

Cowombat Flat, precisely on the border between Victoria and New South Wales, possesses a few small dolines demonstrating that there are both soluble rocks and a subterranean drainage system. A karst system must be present albeit in an area of only a hectare or so. The New South Wales part is within the Pilot Wilderness and is only of local significance.

Ravine (O'Hares Creek/Lobs Hole)

Although there is a great deal of limestone at Ravine most is very thinly bedded, flaggy or impure and thus karst features are absent although there are persistent rumours of caves – and one photograph of a cave entrance alleged to be in O'Hares Creek has been seen. Searching over many years has not revealed any caves in the Devonian limestones (which are one of the two areas within the Park separately entered on the former Register of the National Estate for the geological values – for their fossils in Ravine's case). The Lick Hole Formation is an exemplary example of Early Devonian limestone rich in fossils and displaying changes in depositional environments (Flood 1969, Pedder 1971, Percival 1979).

However, groundwater has dissolved calcium carbonate from the Devonian limestones. This has been re-deposited in a number of places where the waters of the ephemeral streams tumbles over the cliffs of the Milk Shanty Walls. In these sites there are large tufa banks containing some caves of construction, massive stalactites and other karst forms. These may be the largest deposits of tufa south of Far North Queensland. They probably have been deposited very recently – probably through the Quaternary Period.

Ravine has been highly disturbed by grazing, mining, timber cutting, fire and weed invasion. It appears to be somewhat of a rain shadow area and soils are generally infertile

WHAT IS NEW?

Since earlier assessments (e.g. Spate 2003, 2006) of the values of the Kosciuszko karsts little has changed in our knowledge of the seven areas except at Yarrangobilly where there have been considerable advances on two fronts. Firstly, we have the work of Dr Pauline Treble, Prof Andy Baker and their colleagues from ANSTO, the University of New South Wales and elsewhere looking at karst processes especially in relationship to fire. Secondly, there is the work of Fred Aplin and Fred Ford in regarding the vertebrate palaeontology and the occupation of the high country by Indigenous people.

Yarrangobilly Caves has hosted, and continues to work with, researchers from world-class institutions studying the above and belowground environment. Yarrangobilly has the only long-term sub-alpine cave monitoring program in Australia and the first experiment designed to investigate impacts of fire on cave drip water. The research has resulted in seven peer-reviewed journal publications with others to come. A summary of the research projects by Treble et al. (2016) was published in Caves and karst of Yarrangobilly by the Sydney Speleological Society. Here, we summarise the main themes of the research, the methods used and consider the significance of the findings at a national and international level.

Understanding the hydrological processes that affect speleothem development is a central research theme at Yarrangobilly. Campbell et al. (2017) characterised the hydrological influences on one speleothem in Jersey Cave to determine its suitability as a proxy record, whereas Markowska et al. (2015) used a network of drip sites in Harriewood Cave to understand drip water evolution in the epikarst. Both studies demonstrated that it is necessary to consider hydrological processes affecting individual sites for paleoclimate interpretation. Coleborn et al. (2016a) observed a different mechanism affecting cave hydrological processes: the intermittent daily water abstraction by vegetation. They found that transpiration from the overlying vegetation caused daily oscillations in drip discharge. Coleborn et al. (2016b) identified vegetation as a potential variable affecting karst processes. Soil CO2 concentration was lower at burnt sites five years post-fire because there was less vegetation. Lower soil CO2 concentrations can decrease calcite precipitation resulting in reduced speleothem growth (Coleborn et al. 2016b). These findings support a growing research area examining the impact of vegetation on karst processes and speleothem paleoclimate proxies.

Research at Yarrangobilly has also focussed on investigating the relationship between climate and surface conditions and speleothem formation. Tadros et al. (2016) demonstrated a relationship between El Niño Southern Oscillation (ENSO) and drip water trace element concentration. This informs the interpretation of palaeo-rainfall conditions in speleothem records. The impact of fire on drip water geochemistry was investigated using an experimental prescribed fire above South Glory Cave. There was a significant geochemical response to fire that could be used to identify fire events in speleothem records.

A flowstone sample from Jersey Cave was used to assess climate during the period 99-37 ka (Webb et al. 2014). They found that aridity peaked before a growth hiatus from 84 and 47 ka and the recommencement of growth was associated with greater moisture availability. This speleothem record is important because it covers a period that includes the megafauna extinction and the arrival of humans in Australia.

Cave drip discharge monitoring is a common research technique used at Yarrangobilly. The use of 'Stalagmate' commercial drip loggers makes it possible to generate long-term, high temporal resolution drip hydrographs. These data are used to study the cave discharge response to rainfall and build cave hydrological models. Markowska et al. (2015) used a combined conceptual and box hydrological model to explain five drip regime types at Harriewood Cave. Campbell et al. (2017) used drip monitoring and geophysical data to develop a conceptual model that would inform a simple drip model. The two studies independently showed that both caves can be represented by a two-store model (soil and epikarst).

Drip water geochemical properties such as trace metal concentration and stable water isotope (δ18O and δ2H) composition are monitored at Yarrangobilly Caves. Drip water samples were collected on a bi-monthly basis for two years from 18 sites in South Glory Cave to investigate the short-term impact of fire on drip water geochemistry. While, Tadros et al. (2016) used a longer dataset collected from three sites fortnightly from 2007-2013 to investigate the potential of using trace element and stable oxygen-isotope (δ18O) variations as palaeorainfall proxies. Drip water geochemical data is important to identify short-term responses to surface conditions and long-term trends in climate.

Surface monitoring provides an essential context to in-cave monitoring programs and is an important aspect of Yarrangobilly research. Tadros et al. (2018) collected aerosol samples from 2013-2017 and found that the aerosol sources at Yarrangobilly included automobiles, fires, coal fired power plants, windblown soil and sea salt from the Southern Ocean. Data from a weather station installed in 2011 above Harrie Wood Cave has also provided valuable long-term data including soil moisture, soil temperature, air temperature and wind direction which has been used in numerous research projects (Coleborn et al., 2016a, Tadros et al., 2016; Markowska et al., 2015).

The research at Yarrangobilly is significant for Australia as it includes the longest cave monitoring program in the only sub-alpine cave site monitored in Australia (Harrie Wood Cave). The long-term monitoring provides information about the cave response to changing climate and recurring events such as ENSO (Tadros et al., 2016). The paleoclimate record from stalagmite YB-F1 has increased knowledge about past climates in southeast Australia during the period 99-37 ka (Webb et al., 2014). The hydrology of individual caves has been well-characterised, resulting in a comprehensive understanding of the Yarrangobilly Caves system (Markowska et al., 2015; Coleborn et al., 2016a; Campbell et al., 2017). Moreover, this cave system has been placed in an international context by the inclusion of data in meta-datasets (Baker et al., 2016).

The research findings from Yarrangobilly are internationally significant. New protocols have been developed for assessing the fidelity of a speleothem (Campbell et al., 2017) and for determining the relative importance of drip hydrological trends (Coleborn et al., 2016a). Surface processes such as tree water use and bushfires have been identified as potential causes of erroneous paleoclimate record interpretation (Coleborn et al. 2016a, other papers in preparation).

Yarrangobilly research is high quality and has been published in high-ranking journals. The research has primarily focussed on karst hydrological processes and climate processes affecting speleothem proxy paleoclimate records. Additionally, there are long-term monitoring campaigns for cave drip discharge, drip geochemistry, surface conditions. The research has significant findings for Australia and the wider speleothem proxy paleoclimate record community.

The second significant study arises from work carried out by Ken Aplin and Fred Ford, formerly of CSIRO, who investigated many caves at Yarrangobilly, Cooleman and Ravine looking for bone materials to provide evidence of both old and new faunal elements. Eleven sites were investigated with ages from the present back as far as an estimated age of one to four million years (Ford and Aplin, unpublished CSIRO Sustainable Ecosystems report, 2010).

The findings ranged from surficial deposits, layered unconsolidated and consolidated deposits, to an-

cient fossiliferous breccia. Some megafaunal species are represented. Serendipitously, one site, Drummond Cave (Y259), proved to be an Early Holocene human occupation site dating to 9700 calibrated years before present (Aplin et al. 2010). This is highest known occupation site within the region. The presence of stone artefacts and burnt bone indicated the site was used between 9700 and 9120 years before present but infrequently thereafter.

Examination of the Drummond Cave bone material has led to some insights into the coming and going of various mammalian species through the last 10,000 years indicating the regional extinction of such species as Gymnobelideus leadbeateri and Pseudomys higginsi. The fossiliferous breccia possibly predates the arrival of the genus Rattus and thus may shine a light on the pre-Rattus rodents.

CONCLUSIONS

The conclusions of this brief survey of the karst resources and their significance in Kosciuszko National Park are that the Park has international, national, regional and local significance in respect of its karst values. Recent research at Yarrangobilly has contributed significantly to our knowledge and recognition of the karst values. But, this has shown that we need more understanding on Yarrangobilly and the other areas. Studies in karst environments have much to offer us in terms of understanding climate change, the role of fire in geological and biological systems in karst processes and in unravelling archaeological and palaeontological histories. The biospeleological aspects also need further elucidation.

Threats to the karst largely arise from fire, visitor pressures, spread of weeds and of the impacts of wild horses. Fire can affect karst landforms directly by the spalling and calcining of bedrock outcrops destroying surficial karren features (Holland 1984, Spate 2003a, b, c), and by affecting karst processes as described above.

Visitor pressures can be high, but localised, at Yarrangobilly and Cooleman whilst the other areas receive very few visitors largely because of their remote locations and lack of knowledge of the sites. Five are in or partially within designated wilderness areas.

Blackberry (Rubus fruticosus) is found in varying densities in a number of the parks karst environments including Jounama Creek, Indi, Ravine and Yarrangobilly, where it forms dense thickets especially along gullies, creeks and rivers. At Ravine, blackberry infestations pose a major threat to the natural development of tufa terraces, since the type and nature of organic debris present, as well as hydrological regimes and microclimate are key factors that influence tufa deposition. Recent funding has enabled significant weed control programs to be implemented at Cooleman (targeting sweet briar and willow) and Yarrangobilly (targeting blackberry and elms) and have been highly successful in the areas treated.

Feral animals, particularly wild horses, are an issue in many of the karst areas and have caused considerable damage at Cooleman and Cowombat Flat to streams and swamps. Bedrock features such as the very fragile A-tents at Cooleman appear to have been directly destroyed by horse hooves.

Aside from horses, at present the impacts of introduced fauna on the values of the parks karst are relatively minor and limited to localised rooting of the ground by pigs and burrowing and grazing by rabbits. These pests are controlled in accordance with the Southern Ranges Regional Pest Strategy (OEH, 2013).

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Conodonts, Corals and Stromatoporoids from Late Ordovician and Latest Silurian Allochthonous Limestones in the Cuga Burga Volcanics of Central Western New South Wales

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Conodont faunas of two disparate ages were recovered from allochthonous limestone clasts within the Cuga Burga Volcanics of the Wellington region in central western New South Wales. A Late Ordovician conodont fauna comprising 12 species is confidently assigned to the *Taoqupognathus blandus* Biozone of early Katian age. Four other samples yielded latest Silurian conodonts including *Belodella resima*, *Belodella* sp., *Delotaxis detorta*?, *Dvorakia* sp., *Lanea*? *planilingua*, *Panderodus unicostatus*, *Pseudooneotodus beckmanni*, *Pseudooneotodus* sp., *Wurmiella excavata* and *Zieglerodina remscheidensis*. Rugose and tabulate corals found in association with the latest Silurian conodont samples include *Aphyllum lonsdalei*, *Aphyllum pachystele*, *Cystiphyllum* sp., *Tryplasma derrengullenense*, *Entelophyllum patulum yassense*?, *Pseudoplasmopora follis*, *Pseudoplasmopora* sp. cf. *P. heliolitoides*, *Striatopora* sp. A, *Striatopora* sp. B, *Syringopora* sp., and Favositidae gen. et sp. indet. Associated late Silurian stromatoporoids include *Amphipora* sp., *Clavidictyon*? sp., *Schistodictyon webbyi* sp. nov. and *Syringostromella* sp. *Tryplasma derrengullenense* Etheridge, 1907 is revised based on thin sections prepared from the lectotype and a topotype and re-examination of the other type specimens.

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KEYWORDS: biostratigraphy, conodonts, corals, Cuga Burga Volcanics, Lachlan Orogen, Ordovician, Silurian, stromatoporoids.

INTRODUCTION

The Early Devonian (Lochkovian) age of the Cuga Burga Volcanics on the northern Molong High in central western New South Wales is based on its stratigraphic position, variously overlying the Barnby Hills Shale and Hanover Formation of late Silurian age (Rickards et al. 2005), and in other places sitting conformably on the Camelford Limestone that spans the Silurian – Devonian boundary. Stratigraphic units conformably overlying the Cuga Burga Volcanics include the Garra Formation (Lochkovian to Pragian age) and the Tolga Member of the Cunningham Formation (Mawson and Talent 2000; Talent and Mawson 1999). Internal evidence for the age of the Cuga Burga Volcanics is not as precise, as fossils are only present in allochthonous limestones and have not been extensively studied. Conodonts and macrofossils from these allochthonous limestones were previously reported briefly in publications by Strusz (1960, 1961), Bischoff (1981), Meakin and Morgan (1999), Cherns et al. (2004) and Farrell (2004a), in several unpublished honours theses (Kemežys 1959; Bunny 1962; Vandyke1970; Morton 1974) and in an internal report of the Geological Survey of NSW [GSNSW] (Percival 1998). Documented herein are conodonts and associated macrofossils (corals and stromatoporoids) collected from allochthonous limestones within the Cuga Burga Volcanics in the area immediately south and east of Wellington (Fig. 1) during the GSNSW mapping program of the Dubbo 1:250,000 Sheet (2nd edition) in 1997-1998

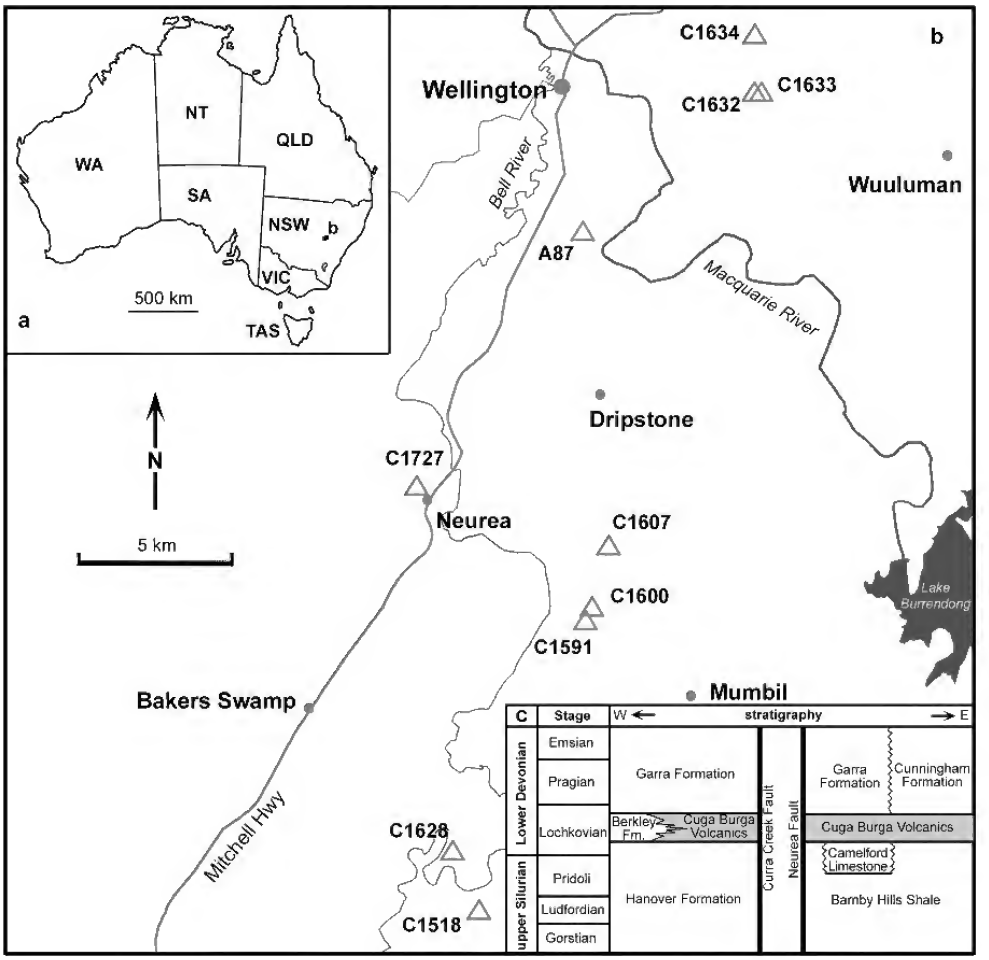

Figure 1. Location maps and stratigraphy of the study area; a, map of Australia showing the location of the study area (Fig. 1b) in central western New South Wales; b, map showing the study area immediately south and east of Wellington and the sample locations from allochthonous limestones in the Cuga Burga Volcanics (base map based on Google Earth); c, Stratigraphy of the Cuga Burga Volcanics (modified after Meakin and Morgan 1999, fig. 1; Fergusson 2010 fig. 4; Mawson and Talent 2000).

and an additional conodont sample (A87) obtained by G. Bischoff. This contribution represents the first palaeontological study focussed on the fossils from the Cuga Burga Volcanics, and provides new data to confirm the allochthonous origin and possible sources of the limestone clasts in this volcanic unit. The study will enable a better understanding of the regional palaeogeography and tectonostratigraphic implications of tectonic events affecting the northern Lachlan Orogen preceding the Early Devonian.

REGIONAL GEOLOGY AND DISTRIBUTION OF THE CUGA BURGA VOLCANICS

The Cuga Burga Volcanics was formally named by Strusz (1960, fig. 2) for the volcanic succession of lava flows, tuffs, breccias, and associated sandstones, siltstones and limestones exposed on both sides of the Oakdale Anticline, immediately south of Wellington (Fig. 1). The nomenclatural history of the unit and its current definition and distribution mainly in the

Dubbo and Bathurst 1:250,000 map sheet areas were reviewed by Meakin and Morgan (1999). The Cuga Burga Volcanics is dominated by shoshonitic latitic volcanic and volcaniclastic rocks with minor lithological components identified as three unnamed members, namely detrital limestone horizons, trachyte and latite intrusions, and trachyte and rhyolite units (Morton 1974; Meakin and Morgan 1999). Although it generally forms easily recognizable rocky hills or walls in the area due to stronger resistance to erosion, no continuous section of the formation is available and the type section is yet to be established. Therefore the lithofacies distribution, internal stratigraphy and detailed correlation of this volcanic unit are still poorly understood.

The thickness of the Cuga Burga Volcanics is highly variable, ranging from a maximum thickness of approximately 1300 m estimated from the outcrops exposed southwest of Stuart Town (Kemežys 1959; Packham 1969; Morton 1974, p. 9; Mawson and Talent 2000; Talent and Mawson 1999), 640 m thick in the Mumbil area (Strusz 1960), about 400 m thick to the north of the Wuuluman Granite, to only 50 m thick in the Four Mile Creek area which represents its most southern exposure (Meakin and Morgan 1999). At a location west of Stuart Town, the Cuga Burga Volcanics was reported missing, with Cunningham Formation directly resting on the Barnby Hills Shale (Packham 1969, p. 140).

Strusz (1960, p. 132) indicated that around the Oakdale Anticline the Cuga Burga Volcanics directly overlay the Barnby Hills Shale and was overlain by the Tolga Member (a calcarenite unit) of the Cunningham Formation (also see Morton 1976). Meakin and Morgan (1999, fig. 1; Fig. 1c) provided a more comprehensive overview of contact relationships of the Cuga Burga Volcanics with underlying and overlying stratigraphic units in the Dubbo 1:250,000 map sheet area. The Lochkovian age (*eurekaensis* conodont Biozone to lower *pesavis* conodont Biozone) now accepted for the Cuga Burga Volcanics relies on these regional stratigraphic contact relationships, specifically derived from conodont biozonation of overlying and underlying stratigraphic units (Talent and Mawson 1999; Meakin and Morgan 1999; Fig. 1c). A Přidoli (*eosteinhornensis* conodont Biozone) to Lochkovian (*eurekaensis* conodont Biozone or possibly early *delta* conodont Biozone) age for the Camelford Limestone was based on the conodont faunas recovered from several measured sections of this unit exposed in the Gap and Camelford Park areas, south of Wellington (Farrell 2004a, 2004b). Intensive studies of conodonts from the Garra Formation that overlies the Cuga Burga Volcanics demonstrated that its base was diachronous, varying from the *delta* conodont Biozone to the *pesavis* conodont Biozone of the upper Lochkovian (Wilson 1987; Mawson et al. 1988; Talent and Mawson 1999; Farrell 2004a). Packham et al. (2001) indicated that the base of the Cunningham Formation was also diachronous from late Lochkovian (*delta* conodont Biozone) on the west flank of the Hill End Trough to late Pragian in the east.

Meakin and Morgan (1999, fig. 9) presented a palaeogeographic model demonstrating the development during the Lochkovian of various stratigraphic units on the Molong Arch (referred to as Molong High, Molong Platform or Mumbil Shelf by various authors) and on the Cowra Trough to the west and Hill End Trough to the east in central NSW. They identified at least five eruptive centres in the region, which generated the material for the deposition of the Cuga Burga Volcanics. Widespread volcanic activity in the late Silurian and Early Devonian reflected thermal instability in the region and acted as a prelude (with alternating episodes of contraction and extension) of the Tabberabberan Orogeny in the Middle Devonian (Fergusson 2010).

METHODS AND REPOSITORY

All the limestone samples were cut for preparation of coral and stromatoporoid thin sections before they were dissolved in 10% acetic acid. The resulting insoluble residues were separated using sodium polytungstate solution to reduce the residue volume for picking. Illustrated specimens were gold coated and photographed by SEM using a mix of secondary and backscattered electrons. Figures 2-6 are SEM photomicrographs of conodonts captured digitally (numbers with the prefix IY are the file names of the digital images). 70 conodont specimens are figured and bearing the prefix MMMC (MMMC5242 to MMMC5311 inclusive). They are deposited in the microfossil collection, and corals (Figs 7-11) and stromatoporoids (Fig. 12) in the macrofossil collection (prefix MMF), of the Geological Survey of New South Wales, housed at the WB Clarke Geoscience Centre at Londonderry in outer western Sydney. For the corals and stromatoporoids illustrated in Figures 7-12, each MMF number represents one rock sample, from which one or more thin sections were prepared (each with a suffix a, b, c etc, following the MMF number). On each thin section, if multiple taxa occur, they are annotated with a suffix -1, -2 -3 etc after the thin section catalogue number, such as MMF34020b-1 (*Tryplasma derrengullenense*) and MMF34020b-2 (*Entelophyllum patulum yassense*?).

Locations	allochthonous limestones	Ordovician	latest Silurian								
	Species / Sample numbers	A87	C1600	C1591	C1607	C1628	C1518	C1627	C1632	C1633	C1634	Total
Conodonts	*Belodina confluens* Sweet, 1979	27										27
	Besselodus fusus Zhen in Zhen et al., 2015	1										1
	Chirognathus cliefdenensis Zhen and Webby, 1995	18										18
	Drepanoistodus suberectus (Branson and Mehl, 1933)	4										4
	Panderodus gracilis (Branson and Mehl, 1933)	114										114
	Panderodus sp. Zhen, Webby and Barnes, 1999	11										11
	Periodon grandis (Ethington, 1959)	16										16
	Pseudooneotodus mitratus (Moskalenko, 1973)	1										1
	Taoqupognathus blandus An in An et al., 1985	10										10
	Venoistodus sp.	1										1
	Yaoxianognathus? *tunguskaensis* (Moskalenko, 1973)	38										38
	Yaoxianognathus sp. cf. *Y. yaoxianensis* An in An et al., 1985	2										2
	Belodella resima (Philip, 1965)		3	3								6
	Belodella sp.			1								1
	Delotaxis detorta? (Walliser, 1964)		1		2							3
	Dvorakia sp.		7									7
	Lanea? *planilingua* (Murphy and Valenzuela-Rios, 1999)		1		2	1?						4
	Panderodus unicostatus (Branson and Mehl, 1934)		36	15		5						56
	Panderodus sp.								5	10		15
	Pseudooneotodus beckmanni (Bischoff and Sannemann, 1958)		1									1
	Pseudooneotodus sp.				1							1
	Wurmiella excavata (Branson and Mehl, 1933)		8	1								9
	Zieglerodina remscheidensis (Ziegler, 1960)		10	4	11	3						28
	Total conodont specimens yielded	243	67	24	16	9	0	0	5	10	0	359
Rugose corals	*Aphyllum lonsdalei* (Etheridge, 1890)			X			X	X				
	Aphyllum pachystele Munson and Jell, 2016		X				X				X	
	Cystiphyllum sp.			X			X					
	Tryplasma derrengullenense Etheridge, 1907							X				
	Entelophyllum patulum yassense? (Etheridge, 1892)			X				X				
Tabulate corals	*Striatopora* sp. A			X				X				
	Striatopora sp. B		X	X			X				X	
	Favositid gen. et sp. indet.		X									
	Pseudoplasmopora follis (Milne-Edwards and Haime, 1851)										X	
	Pseudoplasmopora sp. cf. *P. heliolitoides* (Lindstrom, 1899)							X	X			
	Syringopora sp.							X				
Stromato-poroids	*Amphipora* sp.							X				
	Clavidictyon? sp.							X				
	Schistodictyon webbyi sp. nov.							X				
	Syringostromella sp.		X	X			X	X				

Table 1. Distribution of conodont species from five limestone samples, and corals and stromatoporoids in six limestone samples (X marking occurrence of species in each sample) of the Cuga Burga Volcanics.

Type material of *Tryplasma derrengullenense* Etheridge, 1907, including the Lectotype (AM F.9789, FT.15449 and FT.15450), paralectotypes (AM F.9707 and AM F.50623), and two topotypes (AM F.9793, AM F.9794, FT.15451 cut from AM F9794) are housed at the Australian Museum, Sydney.

NOTE: FIGURES 2-12 ARE LOCATED FOLLOWING THE REFERNCES

MATERIAL AND SAMPLE LOCALITIES

A total of 359 identifiable conodont specimens (Table 1) were recovered from seven limestone samples, including 243 specimens from the Upper Ordovician sample (A87) and 116 specimens from the remaining six samples of Silurian age (mostly latest Silurian). The CAI of the conodonts from these samples is about 3.5 to 4. The limestones are moderately recrystallized with microstructure details of corals and stromatoporoids altered and generally

poorly preserved. However, alteration seems variable among specimens allowing some better-preserved specimens to be studied and illustrated in this contribution.

Sample A87 was collected and processed by the late Dr Günther Bischoff from a limestone megaclast (about 3 m in length) in the Cuga Burga Volcanics, exposed immediately north of the road from Red Hill to Apsley about 400 m E of Apsley (about 400 m E of Railway crossing; grid ref. 32.592222°S, 148.951111°E, see Bischoff 1981, p. 176), 4.5 km SSE of Wellington (Fig. 1). This sample produced a well preserved and diverse Late Ordovician (early Katian) conodont fauna including *Belodina confluens* Sweet, 1979 (Fig. 2a-g), *Besselodus fusus* Zhen in Zhen et al., 2015 (Fig. 2h-i), *Chirognathus cliefdenensis* Zhen and Webby, 1995 (Fig. 2j-n), *Drepanoistodus suberectus* (Branson and Mehl, 1933) (Fig. 2o-p), *Panderodus gracilis* (Branson and Mehl, 1933) (Fig. 3f-k), *Panderodus* sp. Zhen, Webby and Barnes, 1999 (Fig. 3l-o), *Periodon grandis* (Ethington, 1959) (Fig. 3a-e), *Pseudooneotodus mitratus* (Moskalenko, 1973) (Fig. 4h), *Taoqupognathus blandus* An in An et al., 1985 (Fig. 4a-g), *Venoistodus* sp. (Fig. 2q), *Yaoxianognathus*? *tunguskaensis* (Moskalenko, 1973) (Fig. 4i-j) and *Yaoxianognathus* sp. cf. *Y. yaoxianensis* An in An et al., 1985 (Fig. 4k). Bischoff (1981, p. 189) reported recovery of eight valves from this sample (A87) assignable to *Cobcrephora silurica* Bischoff, a problematic taxon originally considered to be a primitive chiton.

Aphyllum lonsdalei			
MMF	Sample No	Dc (mm)	Td (mm)
MMF33963a	C1591	10	1.5-3
MMF33963b	C1591	11x14	
MMF33979a-1	C1591	7	0.8
MMF33979b-1	C1591	8.5	
MMF33980	C1591	6	1
MMF34018a-1	C1627	6	
MMF34019-1	C1627	5	0.8-1
MMF34024a	C1627	7x9	
MMF34024b	C1627	7	1-2
MMF34024c	C1627	7	1-2
MMF 34026	C1627	6	
MMF34006a	C1518	8	2-3
MMF34006b	C1518	8	1-2
MMF 34006c	C1518	9	
MMF34011a	C1518	15	1.8-4
MMF34011b	C1518	12x15	
MMF34012a	C1518	16	2-4
MMF34012b	C1518	16	
MMF34012c	C1518	15	1.5-3
Aphyllum pachystele			
MMF34061a	C1600	19	5
MMF34061b	C1600	10	5
MMF34063a	C1600	16	
MMF34063b	C1600	11	3-5
MMF34008a	C1518	13-19	5
MMF34008c	C1518	13x15	4
MMF34008d	C1518	14	4-5
MMF34085a	C1634	7-19	2-4
MMF34085b	C1634	21	2-9

Table 2. Measurements of the corallite diameter (Dc) and vertical distance between tabulae (Td) of *Aphyllum lonsdalei* (Etheridge, 1890) and *Aphyllum pachystele* Munson and Jell, 2016 from five limestone samples of the Cuga Burga Volcanics.

Sample C1600 (8 kg; grid ref. 32.707499°S, 149.011609°E; Fig. 1) was collected from a light grey-pink, birds-eye limestone clast associated with corals and stromatoporoids from "Tolga", east of Tabletop Hill. Sample C1591 (7.9 kg; grid ref. 32.711902°S, 149.011167°E; Fig. 1) was collected from a fine-grained, pink-grey, birds-eye limestone clast of similar lithology in the same vicinity. These two samples yielded a similar conodont fauna (Tables 1-3) including *Belodella resima* (Philip, 1965) (Fig. 5a-e), *Belodella* sp. (Fig. 5f), *Delotaxis detorta*? (Walliser, 1964), *Dvorakia* sp. (Fig. 5g), *Lanea*? *planilingua* (Murphy and Valenzuela-Rios, 1999) (Fig. 6a), *Panderodus unicostatus* (Branson and Mehl, 1933) (Fig. 5l-n), *Pseudooneotodus beckmanni*

MMF numbers	Localities	*Aphyllum lonsdalei* (Etheridge, 1890)	*Aphyllum pachystele* Munson and Jell, 2016	*Cystiphyllum* sp.	*Tryplasma derrengullenense* Etheridge, 1907	*Entelophyllum patulum yassense*? (Etheridge, 1892)	*Striatopora* sp. A	*Striatopora* sp. B	Favositidae gen. et sp. indet.	*Pseudoplasmopora follis* (Milne-Edwards and Haime, 1851)	*Pseudoplasmopora* sp. cf. *P. heliolitoides* (Lindstrom, 1899)	*Syringopora* sp.	*Amphipora* sp.	*Clavidictyon*? sp.	*Schistodictyon webbyi* sp. nov.	*Syringostromella* sp.
MMF34061a	C1600		×													
MMF34061b	C1600		×													
MMF34062a	C1600							×								
MMF34062b	C1600							×								
MMF34063a	C1600		×													
MMF34063b	C1600		×													
MMF33959a	C1591		×					×								
MMF33959b	C1591							×								
MMF33959c	C1591							×								
MMF33960a	C1591							×								
MMF33960b	C1591							×								
MMF33962a	C1591							×								
MMF33962b	C1591							×								
MMF33963a	C1591	×														
MMF33963b	C1591	×														
MMF33975	C1591							×								
MMF33976	C1591						×									
MMF33977	C1591						×									
MMF33978	C1591							×								
MMF33979a	C1591	×						×								
MMF33979b	C1591	×						×								
MMF33980	C1591	×														
MMF34006a	C1518	×														
MMF34006b	C1518	×														
MMF34006c	C1518	×														
MMF34007a	C1518							×								
MMF34007b	C1518			×				×								
MMF34008a	C1518		×													
MMF34008b	C1518		×													
MMF34008c	C1518		×													
MMF34008d	C1518		×													
MMF34010a	C1518	×														

MMF numbers	Localities	*Aphyllum lonsdalei* (Etheridge, 1890)	*Aphyllum pachystele* Munson and Jell, 2016	*Cystiphyllum* sp.	*Tryplasma derrengullenense* Etheridge, 1907	*Entelophyllum patulum yassense*? (Etheridge, 1892)	*Striatopora* sp. A	*Striatopora* sp. B	Favositidae gen. et sp. indet.	*Pseudoplasmopora follis* (Milne-Edwards and Haime, 1851)	*Pseudoplasmopora* sp. cf. *P. heliolitoides* (Lindstrom, 1899)	*Syringopora* sp.	*Amphipora* sp.	*Clavidictyon*? sp.	*Schistodictyon webbyi* sp. nov.	*Syringostromella* sp.
MMF34010b	C1518			×												
MMF34011a	C1518	×														
MMF34011b	C1518	×														
MMF34012a	C1518	×														
MMF34012b	C1518	×		×												
MMF34012c	C1518	×		×												
MMF34017a	C1627													×	×	
MMF34017b	C1627													×		
MMF34018a	C1627													×		
MMF34019	C1627	×														
MMF34020a	C1627	×														
MMF34020b	C1627				×											
MMF34020c	C1627				×	×										
MMF34021a	C1627										×					
MMF34022a	C1627														×	×
MMF34022b	C1627														×	×
MMF34022c	C1627						×									
MMF34023a	C1627						×					×				
MMF34023b	C1627						×					×				
MMF34024a	C1627	×														
MMF34024b	C1627	×														
MMF34024c	C1627	×														
MMF34024d	C1627		×													×
MMF34026	C1627														×	
MMF34027	C1627															×
MMF34028	C1632															
MMF34085a	C1634		×													
MMF34085b	C1634		×													
MMF34088a	C1634															
MMF34088b	C1634															
MMF34088c	C1634															

patulum yassense? (Etheridge, 1892), *Striatopora* sp. A, *Striatopora* sp. B (Fig. 10e), Favositid gen. et sp. indet. (Fig. 11e), and the stromatoporoid *Syringostromella* sp.

Sample C1607 (7.8 kg; grid ref. 32.689087°S, 149.011082°E; Fig. 1, Table 1) was from a grey-green limestone clast exposed on "Catombal Park" property; it yielded *Delotaxis detorta*? (Fig. 5h), *Lanea*? *planilingua* (Fig. 6b), *Pseudooneotodus* sp. (Fig. 5j) and *Zieglerodina remscheidensis* (Fig. 6g, l-m).

Sample C1628 (8 kg, grid ref. 32.784373°S, 148.990911°E; Fig. 1, Table 1) was from a dark grey, sandy limestone clast exposed near the Bell River. It produced *Panderodus unicostatus*, *Zieglerodina remscheidensis* and a doubtful Pa specimen of *Lanea*? *planilingua*.

Sample C1633 (7.5 kg, grid ref. 32.541400°S, 149.014383°E; Fig. 1, Table 1) from a light to medium grey, sheared limestone exposed on "Brookfield" property, Burrendong, yielded only a few specimens of *Panderodus* sp. Sample C1632 (7.7 kg, grid ref. 32.541428°S, 149.012681°E; Fig. 1, Table 1) from same property also yielded *Panderodus* sp. and a poorly preserved tabulate coral specimen assigned to *Pseudoplasmopora* sp. cf. *P. heliolitoides* (Lindström, 1899).

Conodonts were absent from the following three samples, but they yielded corals and stromatoporoids. Sample C1634 (8.2 kg, grid ref. 32.522597°S, 149.005873°E; Fig. 1) from a pink-red limestone clast exposed on "Hillingdale" property, Burrendong, produced several corals (Tables 1-3) including *Aphyllum pachystele* (Fig. 8c-d), *Striatopora* sp. B and *Pseudoplasmopora follis* (Milne-Edwards and Haime, 1851) (Fig. 11a-b). Sample C1627 (8.4 kg, grid ref. 32.687594°S, 148.939809°E; Fig. 1, Tables 1-3) from a dark grey brecciated limestone exposed at Bells Mine, Wellington, yielded a diverse coral and stromatoporoid fauna including *Aphyllum lonsdalei* (Fig. 7a, d-f), *Tryplasma derrengullenense* Etheridge, 1907 (Fig. 9a-b), a phaceloid rugose coral (strongly recrystallized and indeterminate), *Striatopora* sp. A (Fig. 10a-b), *Pseudoplasmopora* sp. cf. *P. heliolitoides* (Fig. 11c-d), *Syringopora* sp. (Fig. 10a-b), *Amphipora* sp. (Fig. 10a-b), *Clavidictyon*? sp. (Fig. 12h), *Schistodictyon webbyi* sp. nov. (Fig. 12a-f) and *Syringostromella* sp. (Fig. 12g). Sample C1518 (7.5kg, grid ref. 32.797783°S, 149.005419°E; Fig. 1, Tables 1-3) from limestone clasts exposed SE of Bell River yielded several corals including *Aphyllum lonsdalei* (Fig. 7g-i, l), *Aphyllum pachystele* (Fig. 8f-g), *Cystiphyllum* sp. (Fig. 9e-h), *Striatopora* sp. B (Fig. 10c-d) and poorly preserved *Syringostromella* sp.

LATE ORDOVICIAN CONODONT FAUNA AND BIOSTRATIGRAPHIC CORRELATION

The Late Ordovician conodont fauna (Figs 2-4, Table 1) recovered from sample A87 is typical of the *Taoqupognathus blandus* conodont Biozone defined by Zhen (2001) and widely recognized in eastern Australia (Zhen and Webby 1995; Zhen et al. 1999, 2003; Zhen and Percival 2017). Apart from the nominal species, another 11 species were recovered from this limestone. All of them were previously reported from the *T. blandus* conodont Biozone in NSW. Zhen and Percival (2017, fig. 2) suggested an early Katian age (late Ka1) for the *T. blandus* Biozone and correlated it with the *Diplacanthgraptus spiniferus* Biozone (Eastonian 2) and basal part of the overlying *Dicranograptus kirki* Biozone (Eastonian 3) of the Australian graptolite succession.

A conodont fauna of the *T. blandus* Biozone was also reported from allochthonous limestones in the underlying late Silurian Barnby Hills Shale exposed between two major parallel faults (Eurimbla Fault and Curra Creek Thrust Fault) in the area (Zhen et al. 2003, fig. 1). The Bowan Park Limestone Subgroup or a contemporary unit might be the original source of these Late Ordovician limestone clasts.

LATEST SILURIAN CONODONT FAUNA

A late Silurian (mostly likely late Přidoli) conodont fauna (Figs 5-6) was recovered from six productive samples collected from allochthonous limestones in the Cuga Burga Volcanics, represented by 10 species (Fig. 1, Table 1). Among the named species, *Panderodus unicostatus* and *Pseudooneotodus beckmanni* had relatively long stratigraphic ranges extending though the entire Silurian to Lower Devonian, and *Wurmiella excavata* was common from the lower Silurian to Lower Devonian (Corradini and Corriga 2010). *Belodella resima* was reported from the Ludlow to Upper Devonian (Druce 1975; Boogaard 1983; Corriga et al. 2009; Corriga and Corradini 2009; Corradini and Corriga 2012). Despite widespread taxonomic disagreement among Silurian conodont workers and lack of a full multi-element revision of this species originally proposed by Walliser (1964) as a form species from the famous Cellon section, near the Austria/Italy border, *Delotaxis detorta* is the nominal species of the conodont Biozone recognized in the upper part of the Přidoli in Europe. It has a stratigraphic range restricted to the upper Přidoli or possibly extending into the basal Lochkovian (Jeppsson 1988; Corradini and Corriga

2012; Corradini et al. 2017). Jeppsson (1974, p. 22) indicated that at the Cellon section, the population represented by the holotype had a small denticle between some of the large ones. This distinctive character has also been observed in some of the specimens recovered from the Cuga Burga Volcanics (Fig. 5h). However, Carls et al. (2007, pp. 150-151, figs 3, 8) argued that this feature was not unique to *D. detorta* and the alternating small denticles were seen only in some of the specimens that they illustrated as *D. detorta* from the GSSP for the Přidoli Series in the Prague Synform. Both *Lanea*? *planilingua* and *Zieglerodina remscheidensis* in the fauna from the Cuga Burga Volcanics are also characteristic of late Přidoli faunas and useful for age determination. They both have a stratigraphic range constrained to the Přidoli and Lochkovian (Corriga et al. 2009; Corradini and Corriga 2012; Peavey 2013; Zhen et al. 2017). Particularly the former, *Lanea*? *Planilingua,* is restricted to a stratigraphical interval from the uppermost Přidoli to middle Lochkovian, recorded in North America (Peavey 2013), Europe (Murphy and Valenzuela-Rios, 1999; Drygant and Szaniawski 2012; Slavík et al. 2012; Corriga et al. 2014), and in the Camelford Limestone (Farrell 2004a) and the Amphitheatre Group (Zhen et al. 2017) of NSW. However, lack of icriodontids and other definite Devonian forms (e.g. *Lanea* and *Ancyrodelloides*) in the current fauna together with the co-occurrence of *Delotaxis detorta*?, *Lanea*? *planilingua* and *Zieglerodina remscheidensis* supports a latest Silurian (late Přidoli) age for the fauna documented herein.

A conodont fauna of Přidoli age was reported from the Barnby Hills Shale (Farrell 2006) and the basal part of the Camelford Limestone (Farrell 2001, 2004a, 2004b, 2006), which directly beneath the Cuga Burga Volcanics in the study area, south of Wellington. Farrell (2006) interpreted isolated limestone outcrops that yielded the Přidoli conodont fauna as mostly likely "grounded" remnants of the Camelford Limestone along the fault line.

CORAL FAUNAS AND THEIR AGE

Four coral assemblages were recognized in the Silurian System in Australia, mainly based on studies from NSW (Strusz 1989, 1995; Strusz and Munson 1997; Munson et al. 2001). The upper Silurian (Ludlow and probably Přidoli) coral faunas referred to as the Hatton's Corner Assemblage were reported from the Hattons Corner Group at Yass, the upper Yarrangobilly Limestone, Cooleman Limestone, and Quidong Limestone of southern NSW, and the Narragal Limestone, Bungonia Group, Barnby Hills Shale and Mirrabooka Formation in central NSW (Etheridge 1907; Jones 1932, 1936, 1937, 1944; Hill 1940, 1954; Strusz 1961, 1995; Sherwin 1971; McLean 1974, 1975, 1976; Munson et al. 2001). This assemblage is also known from Victoria (see Strusz 1995, p. 20) and the Jack Hills Member of the Jack Formation of northern Queensland (Hill et al. 1969; Munson and Jell 2016). Corals of late Silurian to Lochkovian age were reported from the Cookeys Plains Formation of central NSW (Földvary 2000) and from a dredged sample on the continental slope off southern NSW (Packham et al. 2006). The most distinctive features of the upper Silurian coral faunas are the dramatic decline to disappearance of halysitids and the appearance of several rugose coral species including *Yassia enormis* (Etheridge, 1913), *Toquimaphyllum spongophylloides* (Foerste, 1888), *T.*? *shearsbii* (Chapman, 1925), *Idiophyllum patulum* (Foerste, 1888), *Zelolasma*? *praecox* (Hill, 1940), and *Palaeocyathus australis* Foerste, 1888 (see Strusz 1995, fig. 3) and a number of tabulate corals (see Munson et al. 2001, figs 4-8).

The five rugose coral species in the Cuga Burga Volcanics samples, *Aphyllum lonsdalei*, *Aphyllum pachystele*, *Cystiphyllum* sp., *Tryplasma derrengullenense*, and *Entelophyllum patulum yassense*?, have been widely reported from the upper Wenlock and upper Silurian in New South Wales and Queensland. The type material of *Aphyllum lonsdalei* is from Hatton's Corner near Yass, and it has also been reported from the various localities in the Yass, Bowning, Jenolan, Wellington and Molong areas (Etheridge 1907; Hill 1940; Strusz 1961; Pickett 2010) in central NSW. It has also been reported from reworked clasts in the Sharpeningstone Conglomerate (Lochkovian) in the Burrinjuck area of southeastern NSW (Percival and Zhen 2017). The type specimens of *Entelophyllum patulum yassense* are from the Ludlow of the Yass area (Jones 1936; Hill 1940; McLean 1976; Strusz and Munson 1997; Pickett 2010, p. 98), and it has also been reported from the upper Silurian of north Queensland (Ludlow, see Munson and Jell 2016) and possibly Inner Mongolia (Guo 1978). The type material of *Tryplasma derrengullenense* is from the upper Silurian exposed near Limestone Creek at Bowning in central NSW, and it has also been reported from the Cuga Burga Volcanics (Strusz 1961) in central western NSW and the Wenlock to Ludlow of the Broken River Province in north Queensland (Hill et al. 1969; Munson and Jell 2016). Both *Aphyllum pachystele* and *Cystiphyllum* sp. were previously only recorded from the Jack Formation of the Broken River Province with the former, *Aphyllum pachystele*,

extending from upmost Wenlock to Ludfordian and the latter restricted to the Ludfordian (Munson and Jell 2016, fig. 4).

Among the six species of tabulate corals occurring in the current samples from the Cuga Burga Volcanics, only *Pseudoplasmopora follis* (Milne-Edwards and Haime, 1851) is identified to species level. It was widely distributed in the late Silurian and has been reported from Baltica (Gotland and eastern Europe), Eastern Laurentia (Michigan, Tennessee) and New South Wales (see Földvary 2006, fig. 1).

STROMATOPOROID FAUNA

In Australia, stromatoporoid faunas of late Silurian age were previously reported from the Mirrabooka Formation (Wenlock to Ludlow), Molong Limestone (Wenlock to Ludlow), the Hume Limestone and Bowspring Limestone members of the Silverdale Formation (Ludlow), and the Elmside Formation (Přidoli to Lochkovian) in the Yass region (Birkhead 1975, 1978) and from the Jack Formation (Wenlock to Přidoli) of north Queensland (Webby and Zhen 1997). The fauna from the Jack Formation is characterized by the occurrence of several distinctive clathrodictyids including *Ecclimadictyon*, *Plexodictyon*, *Schistodictyon* and *Simplexodictyon*. Among them, *Schistodictyon* with some 24 species recognized worldwide made its first appearance in the Ludlow (Nestor 2015; Webby et al. 2015). Morphological relationships between *Schistodictyon webbyi* sp. nov. from Sample C1627 in the Cuga Burga Volcanics and several previously known species of *Schistodictyon* in Australia are discussed in the following taxonomic section.

TAXONOMY OF SELECTED CORALS AND STROMATOPOROIDS

Five rugose coral species, two tabulate coral species and one new species of stromatoporoids are documented systematically in this section. Others including *Pseudoplasmopora* sp. cf. *P. heliolitoides* (Lindström, 1899) (Fig. 11c-d), *Syringopora* sp. (Fig. 10a-b), Favositidae gen. et sp. indet. (Fig. 11e), *Amphipora* sp. (Fig. 10a-b), *Clavidictyon*? sp. (Fig. 12h) and *Syringostromella* sp. (Fig. 12g) are illustrated only, as the available material is either insufficient or too poorly preserved to warrant formal taxonomic treatment.

Phylum COELENTERATA Frey and Leuckart, 1847
Subphylum CNIDARIA Hatschek, 1888
Class ANTHOZA Ehrenberg, 1834
Subclass RUGOSA Milne-Edwards and Haime, 1850
Family TRYPLASMATIDAE Etheridge, 1907
Genus *Aphyllum* Soshkina, 1937

Type species

Aphyllum sociale Soshkina, 1937.

Discussion

Hill (1981, p. F100) defined *Aphyllum* as including fasciculate species with lateral or peripheral and pseudoaxial increases. *Aphyllum lonsdalei* (Etheridge, 1890) and *Aphyllum pachystele* Munson and Jell, 2016 from the upper Silurian of Australia had parricidal peripheral increase. For *A. pachystele*, Munson and Jell (2016) reported six offsets from a parent corallite, while in *A. lonsdalei* Etheridge (1907, p. 78) recorded two offsets. In the current material four offsets are observed in a parent corallite (Fig. 7a).

Aphyllum lonsdalei (Etheridge, 1890)
Fig. 7a-l

Synonymy

Tryplasma lonsdalei Etheridge 1890, p. 15, pl. 1, figs 1-6; Etheridge, 1907, pp. 77-80, pl. 10, figs 1-3, pl. 11, figs 2-4, pl. 12, fig. 1, pl. 19, fig. 4, pl. 25, fig. 5, pl. 26, figs 1-7; Hill, 1940, pp. 406-407, pl. 12, figs 13, 14 (*cum syn.*); Strusz, 1961, pp. 343-344, pl. 42, figs 12, 13, text-fig. 4; Pickett, 2010, p. 76.

Tryplasma lonsdalei var. *scalariformis* Etheridge, 1907, pp. 80-81, pl. 12, figs 2, 3, pl. 14, fig. 4, pl. 24, figs 7, 8, 8 a, pl. 25, figs 1-4, pl. 26, figs 8-10.

Tryplasma lonsdalei var. *minor* Etheridge, 1907, pp. 81-2, pl. 16, figs 3, 4, pl. 24, fig. 9, pl. 25, figs 6, 7, pl. 26, fig. 11.

Material

19 thin sections associated with conodont samples C1591 (MMF33963a, MMF33963b, MMF33979a-1, MMF33979b-1, MMF33980), C1627(MMF34018a-1,MMF34019-1,MMF34024a, MMF34024b, MMF34024c, MMF34026), and C1518 (MMF34006a, MMF34006b, MMF34006c, MMF34011a, MMF34011b, MMF3412a, MMF34012b, MMF34012c).

Diagnosis

Species of *Aphyllum* with loosely phaceloid coralla of parricidal peripheral increase; dimeter of corallites 6 mm in average with connecting tubules; short septal spines in two orders forming a thin peripheral stereozone; tabulae thin, commonly complete and horizontal (modified from Hill 1940, p. 406; Strusz 1961, p. 343).

Description

All available specimens are cylindrical or sub-cylindrical discrete corallites with a diameter (Dc) varying from 5-16 mm (Table 2), more commonly 5-10 mm; parricidal peripheral increase, with two or four offsets observed from parent corallites (Fig. 7a, h), suggesting loosely phaceloid coralla, but connecting tubules not observed; specimens moderately to strongly recrystallized with microstructure altered and obscured; septal spines short, formed of holacanths, in most specimens only just extending out of the peripheral stereozone (probably resulting from recrystallization, see Fig. 7g), whereas in better preserved specimens (Fig. 7a, j) two orders of septa are differentiated, major septa 1-1.5 mm long (one-third to half of the radius), minor septa also extending out of the peripheral stereozone, about one-third as long as the major; septal spines organized in rows on the corallite walls; peripheral stereozone composed of lamellar sclerenchyme tissue, 0.3-0.4 mm in thickness; tabulae thin, complete, commonly horizontal, or slightly concave in some specimens, widely spaced, inequidistant, 0.8-4 mm apart (Table 2, Fig. 7b, e-f, h-i, k-l); dissepiments absent.

Discussion

Hill (1940, p. 406) defined *T. lonsdalei* as a phaceloid species of *Tryplasma* with a mean corallite dimeter (Dc) of 6 mm and with connecting tubules. She selected the lectotype (AM F.35512) from the upper Silurian exposed at Hatton's Corner, Yass. Considering the wide Dc variation observed among the specimens from the Yass-Bowning area, she treated the two subspecies proposed by Etheridge (1907) (*T. lonsdalei* var. *scalariformis* with a mean Dc of 8 mm and *Tryplasma lonsdalei* var. *minor* with a Dc of 4-5 mm) as junior synonyms. Hill (1967, 1981) restricted *Tryplasma* to solitary species and transferred the fasciculate species that were previously referred to *Tryplasma* into *Aphyllum* Soshkina 1937. Ivanovskiy (1969) considered *Tryplasma lonsdalei* as a species of *Rhabdacanthia*, which was subsequently treated as a subjective synonym of *Aphyllum* (see Hill 1981, p. F100). These views are followed herein. Etheridge (1907, p. 80) noted that the diameter of corallites in *T. lonsdalei* var. *scalariformis* varied from 8 to 10 mm and reached a maximum of 15 mm. In the specimens from the allochthonous limestones in the Cuga Burga Volcanics, diameters of corallites (Dc) vary from 5 to 16 mm (Table 2), and are generally larger than the types illustrated from Hatton's Corner near Yass, but are more comparable with the variety originally referred to as *T. lonsdalei* var. *scalariformis* by Etheridge (1907). Same variation in corallite sizes of this species was also reported from the Narragal Limestone and Barnby Hills Shale (Strusz 1961) and from the Burrawong Limestone (Zhen 2018) in central western NSW. However, some specimens in the current material are even larger in diameter (reaching 21 mm) and the distance between tabulae is also highly variable (Fig. 8). Considering the average larger size of the corallites in these specimens, they are assigned to *Aphyllum pachystele* Munson and Jell, 2016 (see discussion below).

Aphyllum newfarmeri (Merriam, 1973) from the Roberts Mountains Formation (Fauna C, Ludlow) of the Great Basin, USA differs from *A. lonsdalei* in having a smaller size of corallites (Dc 4-5 mm) and more widely spaced tabulae, and lacks connecting tubules (Merriam 1973, 1976).

Aphyllum pachystele Munson and Jell, 2016
Fig. 8a-g

Synonymy

Aphyllum pachystele Munson and Jell, 2016, pp. 289-291, fig. 9A-M.

Material

Eleven thin sections associated with conodont samples C1600 (MMF34061a, MMF34061b, MMF34063a, MMF34063b), C1591 (MMF33959a-1), C1634 (MMF34085a, MMF34085b) and C1518 (MMF34008a, MMF34008b, MMF34008c, MMF34008d).

Diagnosis

See Munson and Jell (2016, p. 289).

Description

Specimens discrete cylindrical or sub-cylindrical discrete corallites with a diameter (Dc) varying from 7-21 mm (Table 2); parricidal peripheral increase (Fig. 8b), connecting tubules uncommon, and observed only in a few specimens (Fig. 8e); specimens moderately to strongly recrystallized with microstructure altered and obscured; septal spines short and numerous, composed of holacanths, and in most specimens only just extending out of the peripheral stereozone; the latter is composed of lamellar sclerenchyme tissue up

to 1 mm in thickness; tabulae thin, mostly complete, commonly horizontal to gently concave with a central sag in some specimens (Fig. 8d), widely spaced, inequidistant, 2-9 mm apart (Table 2, Fig. 8b-e, g), peripherally rarely supported by inclined tabellae; dissepiments absent.

Discussion

Aphyllum pachystele differs from *A. lonsdalei* by having a larger size of corallites (maximum diameter 25-30 mm), numerous septa (110-120 septa in adult) and more widely spaced tabulae (4-5/10 mm), which are flat or gently sagging and rarely supplemented with declined peripheral tabellae. The type material from the Jack Formation (upper Wenlock to Ludfordian) of the Broken River Province in northeast Queensland shows the distinctive parricidal increase with six offsets, common appearance of connecting tubules and rhabdacanthine septa (Munson and Jell, 2016). Although specimens from the Cuga Burga Volcanics are rather poorly preserved due to recrystallization, they are comparable with the types from northeast Queensland in respect of the size of corallites and the general features of septa, tabulae and peripheral stereozone.

Genus *Tryplasma* Lonsdale, 1845

Type species

Tryplasma aequabile Lonsdale, 1845.

Tryplasma derrengullenense Etheridge, 1907
Figs 8h-r, 9a-b

Synonymy

Tryplasma derrengullenensis Etheridge, 1907, pp. 88, pl. 22, figs 5-8..

Tryplasma derrengullenensis? Etheridge; Strusz, 1961, pp. 345-346, pl.42, fig. 14, pl. 43, fig. 12.

Tryplasma derrengullenense Etheridge; Munson and Jell, 2016, pp. 287-288, fig. 6A-F.

Material

Lectotype (AM F.9789, FT.15449, FT.15450), paralectotypes (AM F.9707, AM F.50623), and topotypes (AM F.9793 and AM F.9794 illustrated by Hill 1940; and FT.15451 newly prepared from AM F.9794) from the upper Silurian exposed in the vicinity of Limestone Creek (more precisely in Derrengullen Creek just above its confluence with Limestone Creek) near Bowning, west of Yass, NSW. One specimen figured herein associated with conodont sample C1627 (MMF34020a, MMF34020b-1).

Diagnosis

Small ceratoid to turbinate *Tryplasma*, diameter 5-18 mm, with irregular rejuvenescence, a deep calice and often trabeculae on distal surfaces of tabulae; rhabdacanthine septa (up to 78-86 in largest specimens) in two orders forming a prominent peripheral stereozone of variable width (0.23-2 mm); tabulae mostly complete, flat or concave and commonly spaced at 8-12 per 10 mm (modified from Hill 1940, p. 407 and Munson and Jell 2016, p. 287).

Description

External

Small solitary coralla, ceratoid, trochoid or turbinate, erect or slightly curved with irregular rejuvenescence and with the maximum diameter in adults ranging from 11 to 16 mm; lectotype (AM F.9789) is a solitary corallum with a maximum diameter (Dc) of 13.14 mm and a total length of 44.10 mm, consisting of the trochoid mother corallum with deep calice and successive daughter offsets by irregular rejuvenescence with growth directions changed several times (Fig. 8h); one of the paralectotypes (AM F.9707) is trochoid with a maximum diameter of 13.98 mm and a length of 22.43 mm with four daughter offsets developed in the calice (Fig. 8i-j); paralectoype AM F.50623 is turbinate with a wider apical angle (about 70°), maximum diameter of 11.15 mm and length of 11.19 mm (Fig. 8k); two topotype specimens illustrated by Hill (1940, pl. 12, fig. 16), both ceratoid; one (AM F.9793) with a maximum diameter of 12.74 mm and a measured length of 28.07 mm and with irregular rejuvenescence, outer surface of corallum wall showing longitudinal double ridges (Fig. 8n); and the other (AM F.9794) is oval in cross section, with a maximum diameter of 13.60x15.61 mm and a preserved length of 27.11 mm (Fig. 8o-q).

Internal

Septa in two orders consisting of large rhabdacanthine trabeculae; major septa reaching up to 3 mm long and varying from specimen to specimen, and only slightly longer and wider than minor, in the lectotype estimated to number 72 (specimen incomplete, Fig. 8l); trabeculae directed upwards and inwards at an angle approximately 30° from the horizontal (Fig. 8m), and distally discontinuous in transverse sections (Fig. 8l, p); septa forming a thin peripheral stereozone 0.25 mm wide, whereas in topotype specimen AM F.9794 (Fig. 8o-p), 80 septa form a thicker peripheral stereozone 1-1.5 mm wide (Dc= 13.60x15.61 mm); tabulae mostly complete, rarely irregularly concave or convex, and variably

spaced, in the lectotype at 7-8 per 10 mm (Fig. 8m), while in topotype specimen AM F.9793 (tangential section, Fig. 8n), spaced at 12 per 10 mm in the middle of the specimen, but more closely spaced in the initial part of the corallum (21-25 per 10 mm); short trabeculae as tooth-like spines often borne on the upper surface of tabulae (Fig. 8m). In both sectioned specimens (AM F.9789, and AM F.9794), thin epitheca only partially preserved as dark compact tissue (Fig. 8q).

Discussion

Etheridge (1907) illustrated drawings of three specimens collected by A.J. Shearsby in 1904 from Limestone Creek, near Bowning in the Yass area, NSW. Recently Strusz (pers. comm., 2018) visited the type area of this species, and from comparison of the lithology and silicified preservation he believed that the type locality was in the Derrengullen Creek just above its confluence with Limestone Creek, between Yass and Bowning. Hill (1940) designated one of the syntypes as the lectotype (AM F.9789), and defined the species based on two topotype specimens (Hill 1940, p. 407, pl. 12, fig. 16) represented by a polished transverse section (AM F.9793) and a polished tangential section (AM F.9794). In this study, two thin sections (a TS, FT.15449, and a LS, FT.15450) have been prepared from the lectotype (Fig. 8l-m), and a transverse thin section (FT.15451 prepared from AM F.9794, Fig. 8p) has also been prepared from one of the topotypes illustrated by Hill (1940). The revised diagnosis and description of this species provided herein are based on the study of these five specimens including three originally illustrated by Etheridge (1907) and two by Hill (1940).

The only specimen (Fig. 9a-b) available from the Cuga Burga Volcanics samples is a solitary trochoid corallum 18 mm in diameter, with two orders of short septa consisting of rhabdacanthine trabeculae directed upwards and inwards at about 30° from the horizontal shown in the longitudinal section (Fig. 9a), and mostly complete tabulae spaced 1-3 mm apart. In comparison with the types, it is relatively larger in size, but falls within the definition of *Tryplasma derrengullenense* that was recently given by Munson and Jell (2016, p. 287, fig. 7). Distinction from other Australian species of *Tryplasma*, such as *T. columnare* Etheridge, 1907 with larger cylindrical corallites, has been discussed by Munson and Jell (2016).

Family CYSTIPHYLLIDAE Milne-Edwards and Haime, 1850
Genus *Cystiphyllum* Lonsdale, 1839

Type species

Cystiphyllum siluriense Lonsdale, 1839.

Cystiphyllum sp.
Fig. 9e-h

Synonymy

Cystiphyllum? (*Cystiphyllum*) sp.; Munson and Jell, 2016, pp. 292-293, fig. 10A-B.

Material

Four specimens associated with conodont samples C1591 (MMF33960a-3) and C1518 (MMF34008b, MMF34010a, MMF34010b, MMF34012b-2, MMF34012c-2).

Description

Three fragmentary specimens suggesting subcylindrical solitary coralla, with a diameter of 14-17 mm; thin peripheral stereozone of sclerenchyme 0.5-1 mm in thickness within which are confined very weakly developed septal spines (Fig. 9e, g), septal crusts absent; in transverse lumen filled by concentrically-arranged vesicular plates, larger in the centre and smaller near the periphery; in longitudinal sections (Fig. 9f, h), dissepimentarium narrow, consisting of one or two rows of adaxially inclined, hemispherical to slightly elongated dissepiments; tabularium wide, about two-thirds of corallum radius, consisting of incomplete tabulae with a horizontally floored and convex axial series, often supplemented with inclined peri-plates, tabellae spaced at 8-12 per 10 mm vertically.

Discussion

Specimens from the Cuga Burga Volcanics are comparable with that described by Munson and Jell (2016) from the upper Jack Formation (Ludlow) of the Broken River Province, north Queensland, but the latter is a corallum of a smaller size (12 mm Dc) and less complete tabularium with more convex central tabellae.

Family ENTELOPHYLLIDAE Hill, 1940
Genus *Entelophyllum* Wedekind, 1927

Type species

Madreporites articulatus Wahlenberg, 1821.

Entelophyllum patulum yassense? (Etheridge, 1892)
Fig. 9c-d

Synonymy

Heliophyllum yassense Etheridge, 1892, p. 170, pl. 11, fig. 8, pl. 12, figs 1-3.
Entelophyllum yassense (Etheridge); Hill, 1940, p. 412, pl. 13, figs 11-12.
Entelophyllum patulum yassense (Etheridge); Munson and Jell, 2016, pp. 303-306, figs 10C-E, 16A-F (*cum syn.*).

Material

Two specimens associated with conodont samples C1627 (MMF34020b-2, MMF34020c) and C1591 (MMF33975a, MMF33975b).

Discussion

Only two fragmentary specimens are available. The figured specimen (Fig. 9c-d) has a diameter of 17 mm with two orders of septa that are dilated with prominent carinae in the wide dissepimentarium consisting of small globose dissepiments and a tabularium consisting of incomplete tabellae. It is comparable with *Entelophyllum patulum yassense*, widely reported from the upper Silurian of eastern Australia (Etheridge 1892; Hill 1940; Munson and Jell 2016). However, due to only incomplete transverse sections and an oblique longitudinal section being available, this assignment is regarded as tentative.

Subclass TABULATA Milne-Edwards and Haime, 1850
Family PACHYPORIDAE Gerth, 1921
Genus *Striatopora* Hall, 1851

Type species

Striatopora flexuosa Hall, 1851.

Striatopora sp. A
Fig. 10a-b

Material

Four thin sections associated with conodont samples C1591 (MMF33976, MMF33977) and C1627 (MMF34023a, MMF34023b).

Description

Coralla ramose, preserved as cylindrical branches 7-10 mm in diameter; corallites curving away from axial longitudinal direction and opening perpendicular to surface, with thin walls of compact tissue in the axial region and strong thickening peripherally to form a stereozone 0.5-2 mm wide in longitudinal sections (Fig. 10a-b); stereozone consisting of fine lamellar tissue; corallites polygonal in transverse sections, adult corallites 1-1.4 mm in diameter in axial region and 1.5-1.8 mm on the surface of the coralla; mural pores common, 0.1-0.2 mm wide; tabulae thin and complete, horizontal or slightly concave, 0.8-2 mm apart (commonly 1.5 mm); no septal spines.

Discussion

Striatopora sp. A is characterized by having thin corallite walls in the axial region of the coralla and a thickened stereozone of 0.5-2 mm wide on the surface of the coralla.

Striatopora sp. B
Fig. 10c-e

Material

Fifteen thin sections associated with conodont samples C1591 (MMF33959a-2, MMF33959b, MMF33959c, MMF33960a-1, MMF33960a-2, MMF33960a, MMF33962a, MMF33962b, MMF33975, MMF33978, MMF33979a-2, MMF33979b-2), C1600 (MMF34062a-2, MMF34062b-2) and C1518 (MMF34007a, MMF34007b).

Description

Coralla ramose, preserved as cylindrical branches 4-8 mm in diameter; corallites curving away from axial longitudinal direction and opening obliquely to surface at an angle of about 30°; corallites polygonal in transverse sections, adult corallites 0.8-1 mm in diameter in axial region and up to 1.8 mm on the surface; thin compact walls thickened on both sides in the axial region with secondary lamellar tissue to form a thick wall 0.2 mm wide in transverse sections, thickening gradually and more strongly towards surface of coralla (Fig. 10c-e); mural pores common, about 0.1mm wide; tabulae thin, complete and horizontal, 0.5-1.5 mm apart (typically spaced 7-8 in 5 mm); no septal spines.

Discussion

Striatopora sp. B differs from *Striatopora* sp. A by having thickened corallite walls in the axial region, corallites extending obliquely from axis to the surface of coralla, and closer spaced tabulae.

Family PSEUDOPLASMOPORIDAE Bondarenko, 1963
Genus *Pseudoplasmopora* Bondarenko, 1963

Type species

Pseudoplasmopora conspecta Bondarenko, 1963.

Pseudoplasmopora follis (Milne-Edwards and Haime, 1851)
Fig. 11a-b

Synonymy

Plasmopora follis Milne-Edwards and Haime, 1851, p. 223, pl. 16, figs. 3, 3a.
Pseudoplasmopora follis (Milne-Edwards and Haime); Földvary, 2006, p. 180, figs 4A-F, 8E-F (*cum syn.*).

Material

One specimen associated with conodont sample C1634 (MMF34088a, MMF34088b, MMF34088c).

Diagnosis

See Földvary (2006, p. 180).

Discussion

The only specimen is poorly preserved with tabularia averaging 1 mm in diameter and spaced 21-25 per cm^2 in transverse sections and in the longitudinal section 11-12 tabulae in 5 mm. It is identical with those documented from the Přidoli rocks in the Trundle region of central NSW (Földvary, 2006) and from the Perry Creek Formation of northern Queensland (Hill et al. 1969), except that in the current specimen spacing of the tabularia is rather variable and less closely spaced.

Two other specimens represented only by transverse sections (MMF34018a, MMF34021a) from C1627 and a poorly preserved specimen from C1632 (longitudinal section, MMF34028) have a larger diameter of tabularia (1.5-2 mm), well-developed septal spines and more widely spaced tabularia (7-9/cm^2). Septal spines are variable in length and thickened towards the base. They show some resemblance to *P. heliolitoides* (Lindström, 1899) and are herein assigned to *Pseudoplasmopora* sp. cf. *P. heliolitoides* (Fig. 11c-d).

Phylum PORIFERA Grant, 1836
Class STROMATOPOROIDEA Nicholson and Murie, 1878
Order CLATHRODICTYIDA Bogoyavlenskaya, 1969
Family ANOSTYLOSTROMATIDAE Nestor, 2011
Genus *Schistodictyon* Lessovaya in Lessovaya and Zakharova, 1970

Type species

Schistodictyon posterium Lessovaya in Lessovaya and Zakharova, 1970.

Schistodictyon webbyi sp. nov.
Fig. 12a-f

Material

Three specimens associated with conodont sample C1627 including holotype (MMF34017a, MMF34017b), and two unfigured paratypes (MMF34022a, MMF34022b, MMF34027).

Derivation of name

In honour of Dr Barry Webby, who has made an outstanding contribution to the study of the Palaeozoic stromatoporoids.

Diagnosis

A species of *Schistodictyon* with closely spaced pillars (9-11 per 2 mm) that expand upward in Y-shapes and form a regular network immediately beneath thin and widely-spaced laminae (6-7 per 2 mm).

Description

Skeleton domical and massive with unknown external dimensions; neither mamelons nor astrorhizae observed; microstructure obscured by recrystallization.

Pillars confined to single interlaminar spaces (not superposed) in vertical sections, column-like in the lower part, extending upward into a Y-shaped funnel structure, closely spaced with gallery width narrower than gallery height, 9-11 pillars per 2 mm (Fig. 12c-d, f). In tangential sections, basal part of the pillars appearing as discrete rounded dots (0.035-0.045 mm in diameter), upper part as irregular bars or vermiform, at the top forming a regular network joining tops of surrounding pillars (Fig. 12a-b, e); discrete ring pillars rare (Fig. 12a-b).

Laminae continuous, gently undulating and rarely broken up by small pores in vertical sections, thin, compact and thickened by expanded tops of pillars, thickness varying from 0.07 to 0.08 mm, irregularly spaced 0.2-0.5 mm (average 0.3 mm) apart, typically 6-7 laminae per 2 mm; dissepiments common, variable in size, gently domed upward, thin and compact.

Discussion

As discussed by Webby and Zhen (1997, p. 31), *Schistodictyon* differs from *Anostylostroma* Parks, 1936 mainly by having expanded top parts of the pillars, which show as ring pillars or regular network in tangential sections. In the new species, pillars are funnel-shaped at the top, joining together

to form a regular network immediately underneath the laminae (Fig. 12a-b, e), but isolated ring pillars are rare in tangential sections (Fig. 12a). It can be easily differentiated from *Schistodictyon jackense* Webby and Zhen, 1997 from the middle part of the Jack Formation (Ludlow) of the Broken River Province, North Queensland, and *Schistodictyon conjugatum* Lesovaya, 1970 reported from the Hume Limestone Member (Birkhead 1975) and the Bowspring Limestone Member (Birkhead 1978) of the Silverdale Formation (Ludlow) of the Yass district, central NSW, by pillars forming a regular network immediately beneath laminae and by the rare occurrence of isolated ring pillars in tangential sections. It also has wider interlaminar spaces (7-10/2 mm in *S. jackense* and 9-10/2 mm in *S. conjugatum*). Furthermore, multiple splitting of the pillars at the top is common in both *S. jackense* and *S. conjugatum*, but is lacking in the new species. *Schistodictyon? cylindriferum* (Ripper, 1933) from the Lilydale Limestone (Pragian) of Victoria has more closely spaced laminae (9-12 per 2 mm) and well-developed large astrorhizal canals (Webby et al. 1993).

DISCUSSION AND CONCLUSIONS

The allochthonous limestone clasts in the Cuga Burga Volcanics were apparently derived from various sources ranging from the Upper Ordovician to uppermost Silurian or possibly lowest Devonian. The Late Ordovician limestone clast (comparable to those from the Barnby Hills Shale) may have originated from the Bowan Park Limestone Subgroup or its correlatives in the area, while the late Silurian limestone clasts that produced conodonts, corals and stromatoporoids documented herein were likely to have come from the Camelford Limestone that directly underlies the Cuga Burga Volcanics.

The Cuga Burga Volcanics accumulated rapidly during a relative short time interval (confined to the Lochkovian Stage), locally reaching a thickness of about 1300 m. Strong variation in thickness within a short distance and diachronous relationships with underlying and overlying stratigraphic units demonstrate that the Volcanics were developed primarily in relatively deeper water as an assembly of sedimentary packages (or pedestals) associated with volcanic centres scattered on the Cowra Trough, Molong Arch and Hill End Trough during the middle Lochkovian (Meakin and Morgan 1999, fig. 9).

The disparate ages of these Ordovician and Silurian limestone clasts support the view that they were ripped up from underlying strata by the local volcanic eruptions. Active volcanism probably also trigged gravitational collapse of the sea-floor scarps and/or hard grounds formed by older rocks (topographic features inherited from uplift during the Benambran Orogeny or caused by syndepositional listric faulting). The collapsed material was then redeposited in surrounding submarine volcanic pedestals and associated sedimentary packages now referred to as the Cuga Burga Volcanics.

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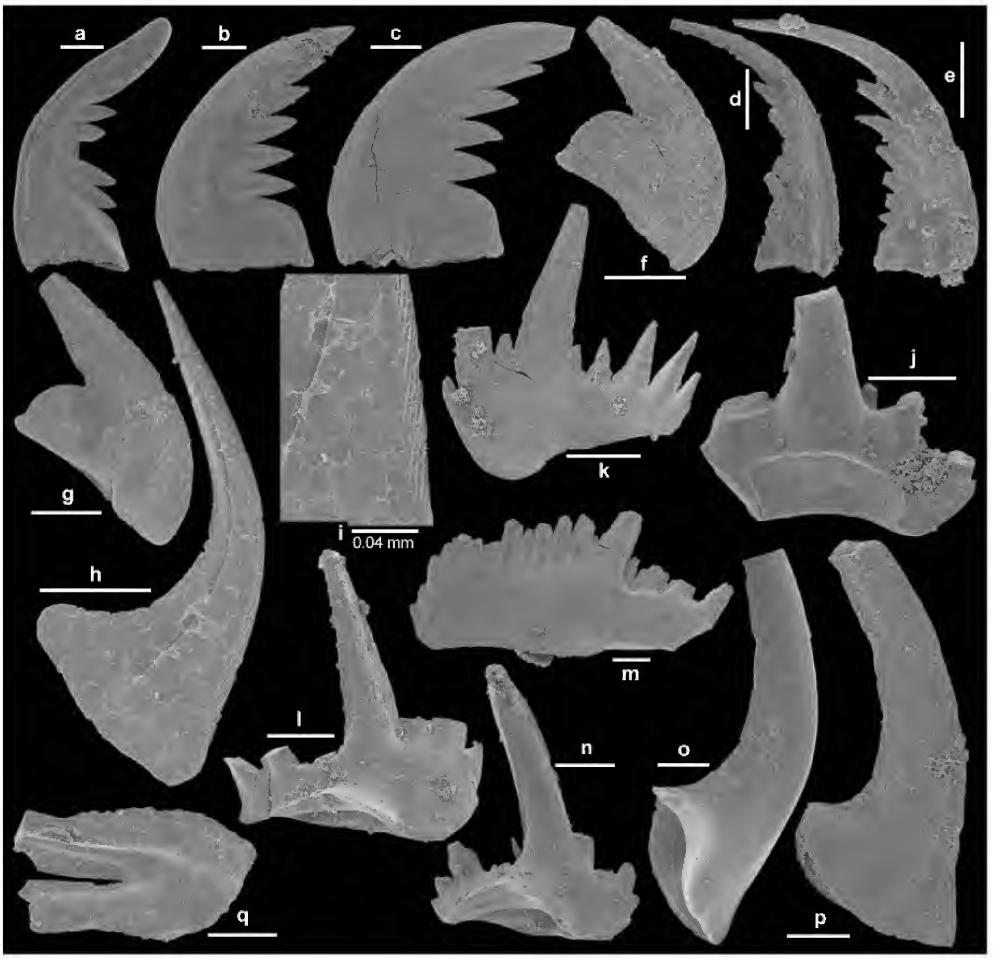

Figure 2. Conodonts recovered from an allochthonous Late Ordovician limestone clast (sample A87) in the Cuga Burga Volcanics. a-g, *Belodina confluens* Sweet, 1979. a, S2 (grandiform) element, MMMC5242, view of furrowed side (IY345-010); b-c, S1 (compressiform) element; b, MMMC5243, view of unfurrowed side (IY345-011); c, MMMC5244, view of furrowed side (IY345-012); d-e, S3 (dispansiform) element; d, MMMC5245, view of furrowed side (IY345-013); e, MMMC5246, view of unfurrowed side (IY345-014); f-g, M (eobelodiniform) element; f, MMMC5247, view of unfurrowed side (IY345-016), g, MMMC5248, view of furrowed side (IY345-015). h-i, *Besselodus fusus* Zhen in Zhen et al., 2015. Sb element, MMMC5249, h, outer-lateral view (IY346-010), i, enlargement showing striation along outer-lateral margin (IY346-011). j-n, *Chirognathus cliefdenensis* Zhen and Webby, 1995. j, Sb element, MMMC5250, posterior view (IY346-013); k, M element, MMMC5251, posterior view (IY346-004); l, Sc element, MMMC5252, inner-lateral view (IY346-005); m, Pa element, MMMC5253, inner-lateral view (IY345-017); n, Sc element, MMMC5254, inner-lateral view (IY346-003). o-p, *Drepanoistodus suberectus* (Branson and Mehl, 1933). o, Pa element, MMMC5255, outer-lateral view (IY346-008); p, Pb element, MMMC5256, inner-lateral view (IY346-009). q, *Venoistodus* sp. M element, MMMC5257, posterior view (IY345-024). Scale bar 100 µm unless otherwise indicated.

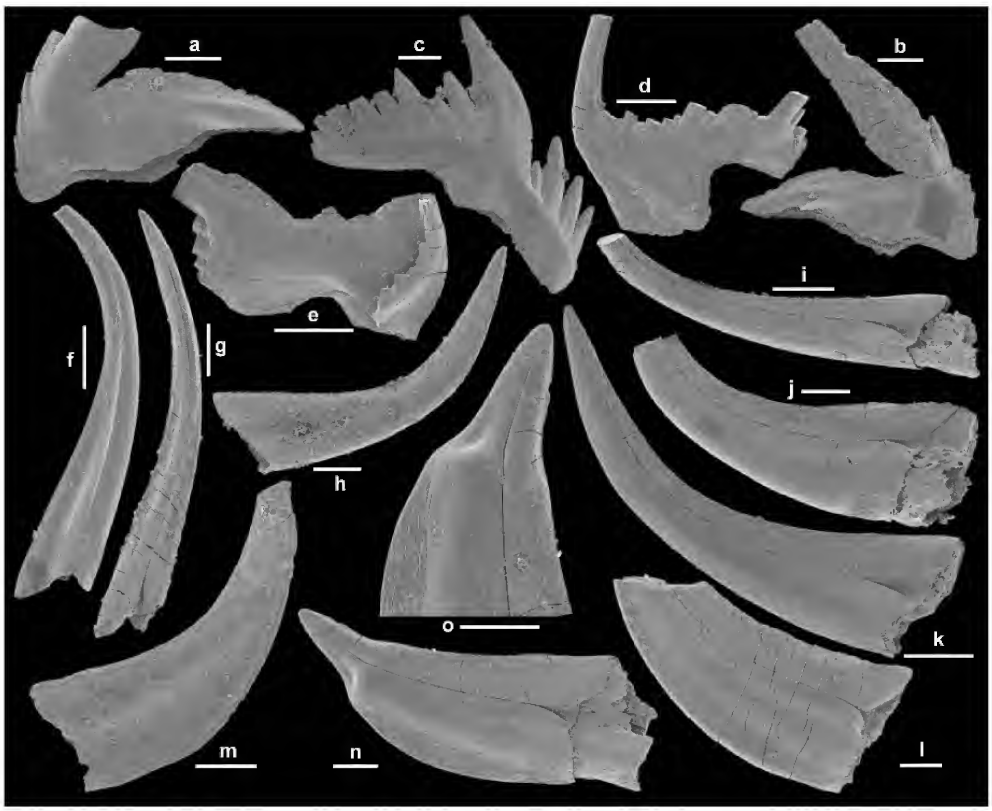

Figure 3. Conodonts recovered from allochthonous Late Ordovician limestone clast (sample A87) in the Cuga Burga Volcanics. a-e, *Periodon grandis* (Ethington, 1959). a-b, M element, a, MMMC5258, anterior view (IY345-025); b, MMMC5259, anterior view (IY345-019); c, Pa element, MMMC5260, outer-lateral view (IY346-001); d, Sc element, MMMC5261, outer-lateral view (IY346-007); e, Sb element, MMMC5262, outer-lateral view (IY346-002). f-k, *Panderodus gracilis* (Branson and Mehl, 1933). f-g, similiform element; f, MMMC5263, inner-lateral view (IY345-028); g, MMMC5264, outer-lateral view (IY345-026); h-i, arcuatiform element; h, MMMC5265, inner-lateral view (IY345-031); i, MMMC5266, outer-lateral view (IY345-027); j-k, falciform element; j, MMMC5267, outer-lateral view (IY345-032); k, MMMC5268, outer-lateral view (IY345-029). l-o, *Panderodus* sp. Zhen, Webby and Barnes, 1999. l, MMMC5269, outer-lateral view (IY345-033); m, MMMC5270, inner-lateral view (IY346-015); n-o, MMMC5271, n, outer-lateral view (IY345-021), o, close up showing wearing of the distal cusp (IY345-022). Scale bar 100 µm.

Figure 4. Conodonts recovered from allochthonous Late Ordovician limestone clast (sample A87) in the Cuga Burga Volcanics. a-g, *Taoqupognathus blandus* An in An et al., 1985. a, P element, MMMC5272, inner-lateral view (IY345-003); b-c, M-2 element; b, MMMC5273, inner-lateral view (IY345-009); c, MMMC5274, outer-lateral view (IY345-008); d-e, Sc-5 element; d, MMMC5275, inner-lateral view (IY345-005); e, MMMC5276, outer-lateral view (IY345-004); f-g, Sc-3 element; f, MMMC5277, outer-lateral view (IY345-006); g, MMMC5278, inner-lateral view (IY345-007). h, *Pseudooneotodus mitratus* (Moskalenko, 1973). MMMC5279, upper view (IY345-023). i-j, *Yaoxianognathus? tunguskaensis* (Moskalenko, 1973). Sc element; i, MMMC5280, inner-lateral view (IY346-012); j, MMMC5281, inner-lateral view (IY345-001). k, *Yaoxianognathus* sp. cf. *Y. yaoxianensis* An in An et al., 1985. Sb element, MMMC5282, posterior view (IY346-006). Scale bar 100 µm.

Figure 5. Conodonts recovered from allochthonous latest Silurian limestone clasts in the Cuga Burga Volcanics. a-e, *Belodella resima* (Philip, 1965). a, Sa element, MMMC5283, sample C1591, lateral view (IY346-025); b-c, Sb element; b, MMMC5284, sample C1591, outer-lateral view (IY346-026); c, MMMC5285, sample C1600, inner-lateral view (IY347-010); d-e, Sc element; d, MMMC5286, sample C1600, inner-lateral view (IY347-011); e, MMMC5287, sample C1591, inn-lateral view (IY346-027). f, *Belodella* sp., element with minute denticles along posterior edge, MMMC5288, sample C1591, inner-lateral view (IY346-028). g, *Dvorakia* sp., coniform element, MMMC5289, sample C1600, inner-lateral view (IY347-012). h, *Delotaxis detorta*? (Walliser, 1964). Sa element, MMMC5290, sample C1607, posterior view (IY347-014); i, *Zieglerodina remscheidensis* (Ziegler, 1960). Sc element, MMMC5291, sample C1600, inner-lateral view (IY347-020). j, *Pseudooneotodus* sp. MMMC5292, sample C1607, upper view (IY347-017); k, *Pseudooneotodus beckmanni* (Bischoff and Sannemann, 1958). MMMC5293, sample C1600, upper view (IY347-018). l-n, *Panderodus unicostatus* (Branson and Mehl, 1933). l-m, aequaliform (ae) element; l, MMMC5294, sample C1591, lateral view (IY347-001); m, MMMC5295, sample C1591, lateral view (IY347-003); n, graciliform (qg) element, MMMC5296, sample C1591, inner-lateral view (IY347-004). Scale bar 100 µm.

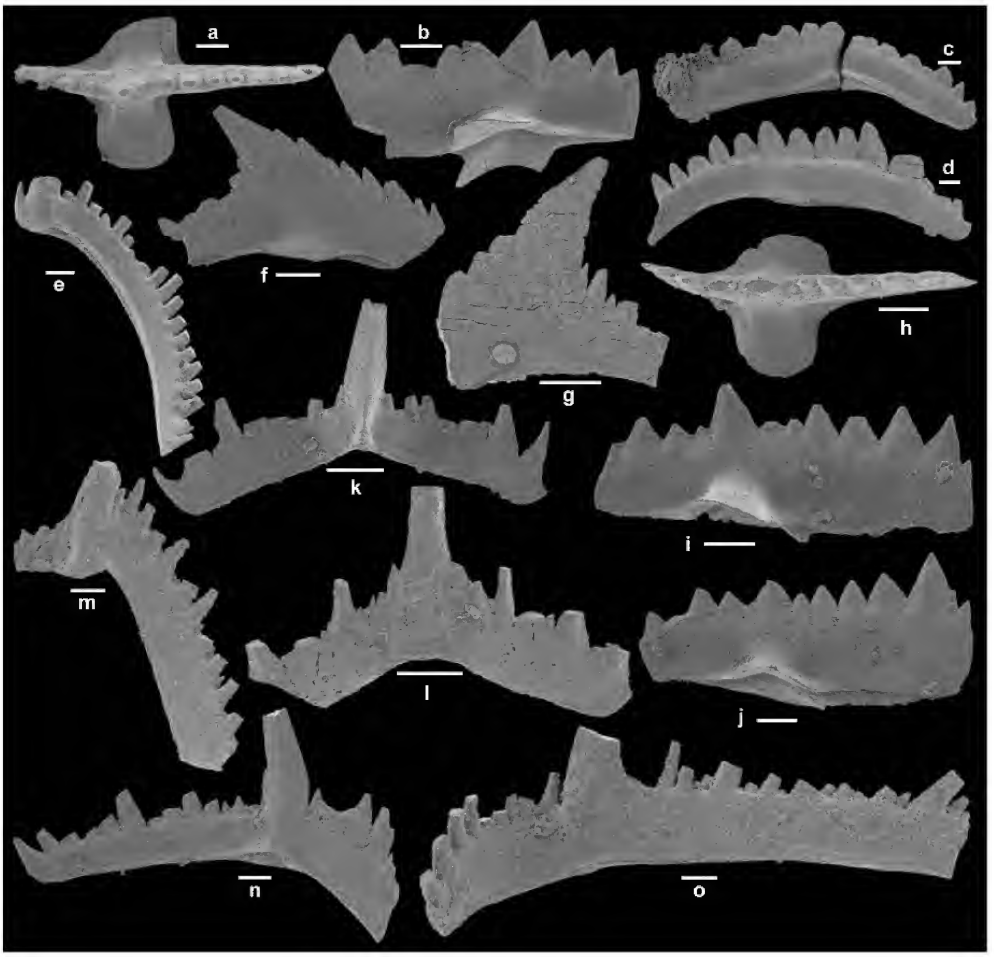

Figure 6. Conodonts recovered from allochthonous latest Silurian limestone clasts in the Cuga Burga Volcanics. a-b, *Lanea*? *planilingua* Murphy and Valenzuela-Rios, 1999. Pa element; a, MMMC5297, sample C1600, upper view (IY346-022); b, MMMC5298, sample C1607, inner-lateral view (IY346-024). c-e, *Wurmiella excavata* (Branson and Mehl, 1933). c-d, Pa element; c, MMMC5299, sample C1591, outer-lateral view (IY346-016); d, MMMC5300, sample C1600, outer-lateral view (IY346-021); e, M element, MMMC?5301, sample C1600, posterior view (IY347-008). f-o, *Zieglerodina remscheidensis* (Ziegler, 1960). f-g, Pb element; f, MMMC5302, sample C1591, outer-lateral view (IY346-017); g, MMMC5303, sample C1607, inner-lateral view (IY347-013); h-j, Pa element; h, MMMC5304, sample C1591, upper view (IY346-019); i, MMMC5305, sample C1600, outer-lateral view (IY346-023); j, MMMC5306, sample C1591, outer-lateral view (IY346-018); k-l, Sa element; k, MMMC5307, sample C1600, posterior view (IY347-005); l, MMMC5308, sample C1607, anterior view (IY347-015); m, M element, MMMC5309, sample C1607, posterior view (IY347-016); n-o, Sc element; n, MMMC5310, sample C1600, inner-lateral view (IY347-006); o, MMMC5311, sample C1600, inner-lateral view (IY347-007). Scale bar 100 µm.

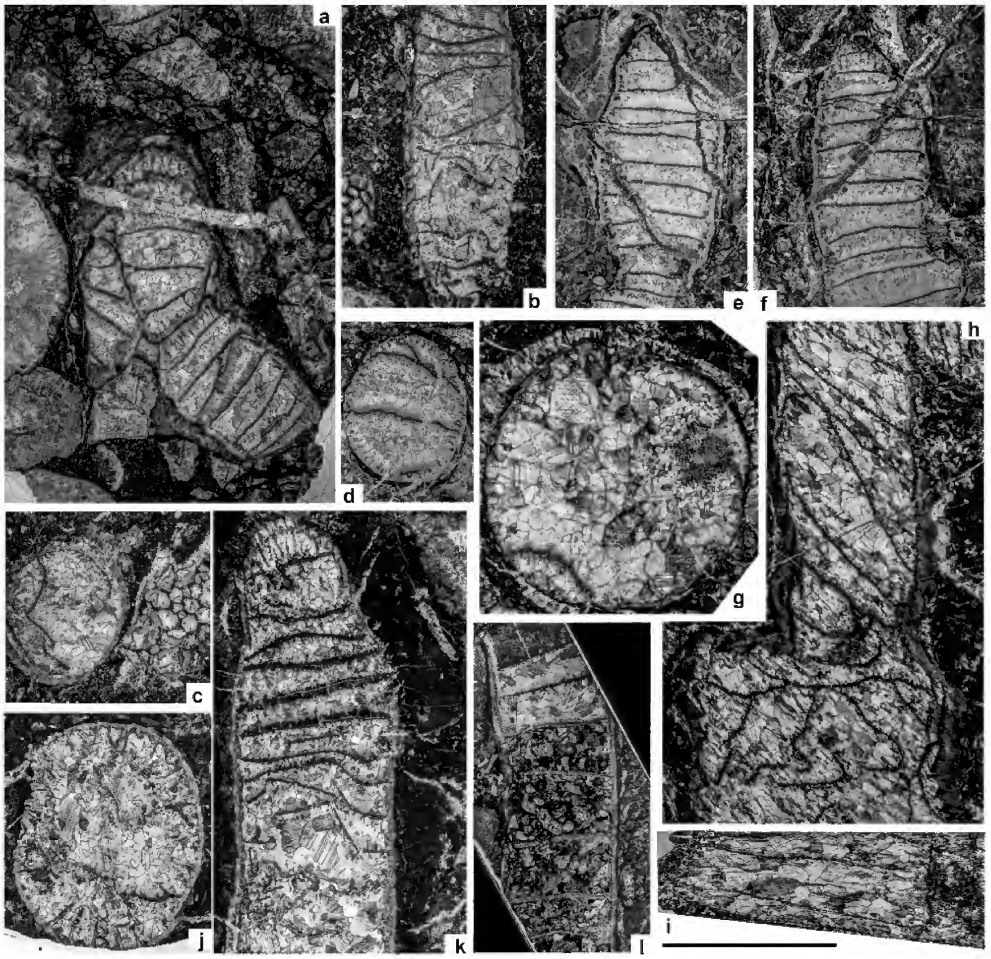

Figure 7. ***Aphyllum lonsdalei*** **(Etheridge, 1890). a, MMF34019, TS, showing parricidal peripheral increase; b, MMF33979a, LS; c, MMF33979b, TS; d, MMF34024a, TS; e, MMF34024b, LS; f, MMF34024c, LS; g, MMF34012b-1, TS; h, MMF34012a-1, LS, showing parricidal peripheral increase; i, MMF34012c-1, LS; j, MMF33963b, TS; k, MMF33963a, LS; l, MMF34006a, LS. TS = Transverse section, LS = Longitudinal section; a, d-f from C1627, b-c, j-k from C1591, g-i, l from C1518; all at same magnification, scale bar = 10 mm.**

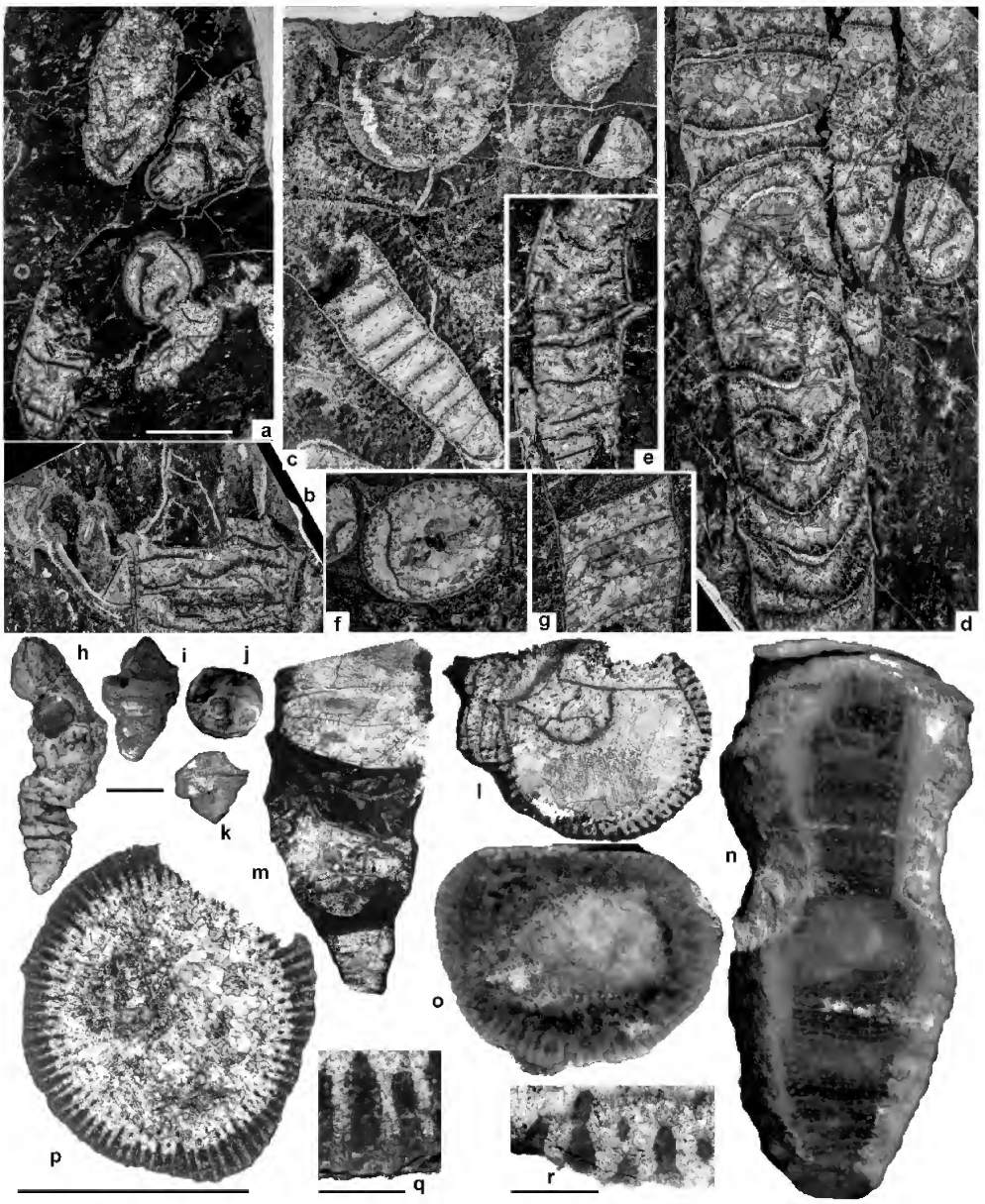

Figure 8. a-g, *Aphyllum pachystele* Munson and Jell, 2016. a, MMF34061b, TS; b, MMF34061a, LS; c, MMF34085b, TS; d, MMF34085a, LS; e, MMF34063b, LS, showing connecting tubule; f, MMF34008c, TS; g, MMF34008d, LS., a-b, e from C1600, c-d from C1634, f-g from C1518. h-r, *Tryplasma derrengullenense* Etheridge, 1907. h, l-m, r, AM F.9789, lectotype, h, external lateral view (also figured by Etheridge, 1907, pl. 22, fig. 8), l, TS (FT.15449), m, LS (FT.15450), r, closing up showing rhabdacanthine septal microstructure (FT.15449); i-j, AM F.9707, paralectotype, i, lateral view (also figured by Etheridge, 1907, pl. 22, fig. 6), j, calical view showing offsets; k, AM F.50623, paralectotype, lateral view (also figured by Etheridge, 1907, pl. 22, fig. 5); n, AM F.9793, topotype, polished tangential surface (also figured by Hill, 1940, pl. 12, fig. 16 right),; o-q, AM F.9794, topotype, o, polished transverse surface (also figured by Hill, 1940, pl. 12, fig. 16 left), p, TS (FT.15451), q, closing up showing rhabdacanthine septal microstructure (FT.15451). Abbreviations referring to Figure 7 caption. Scale bars = 10 mm (a-g, h-k and l-p at same magnification respectively except = 1 mm for q, r).

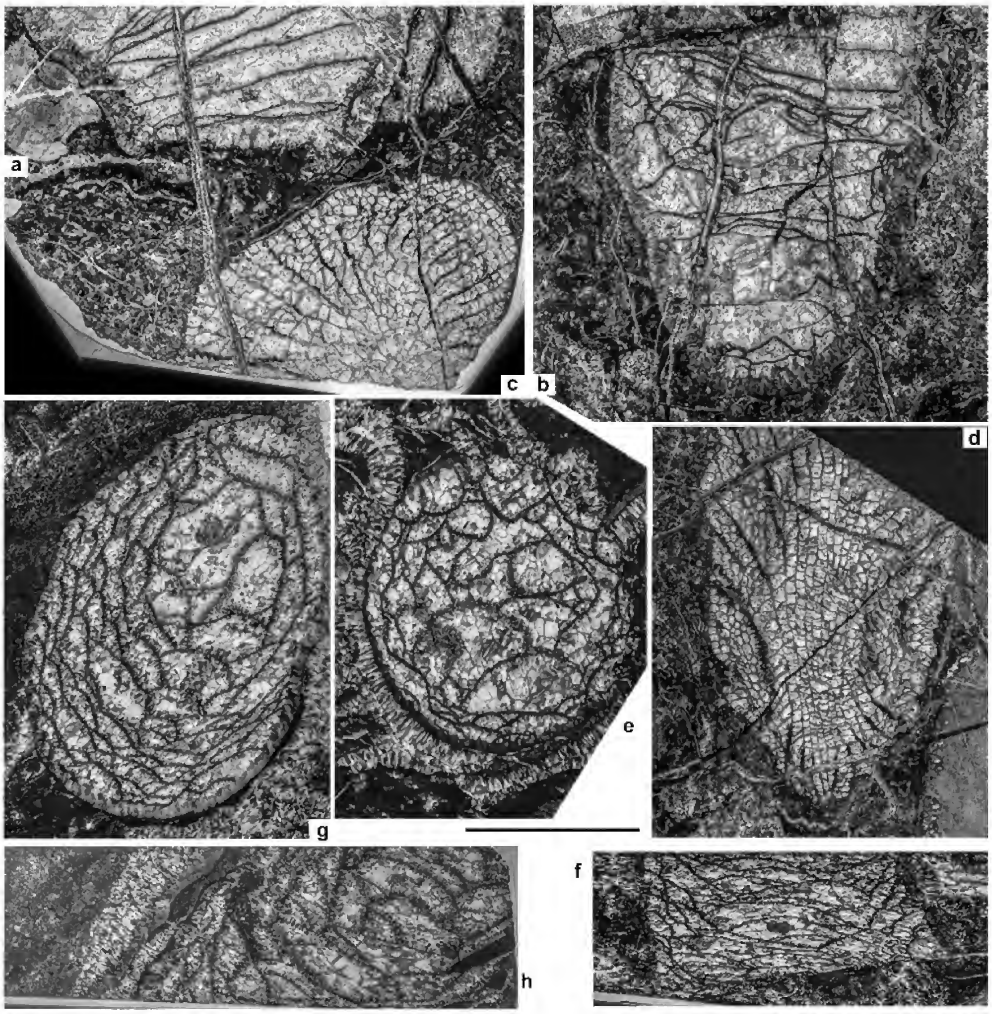

Figure 9. a-b, *Tryplasma derrengullenense* Etheridge, 1907. a, MMF34020b-1, LS; b, MMF34020a, oblique TS. c-d, *Entelophyllum patulum yassense*? (Etheridge, 1892). c, MMF34020b-2, TS; d, MMF34020c, oblique LS. e-h, *Cystiphyllum* sp. e, MMF34012b-2, TS; f, MMF34012c-2, TS; g, MMF34010a, TS; h, MMF34010b, LS. Abbreviations referring to Figure 7 caption; a-d from C1627 and e-h from C1518, all at same magnification, scale bar = 10 mm.

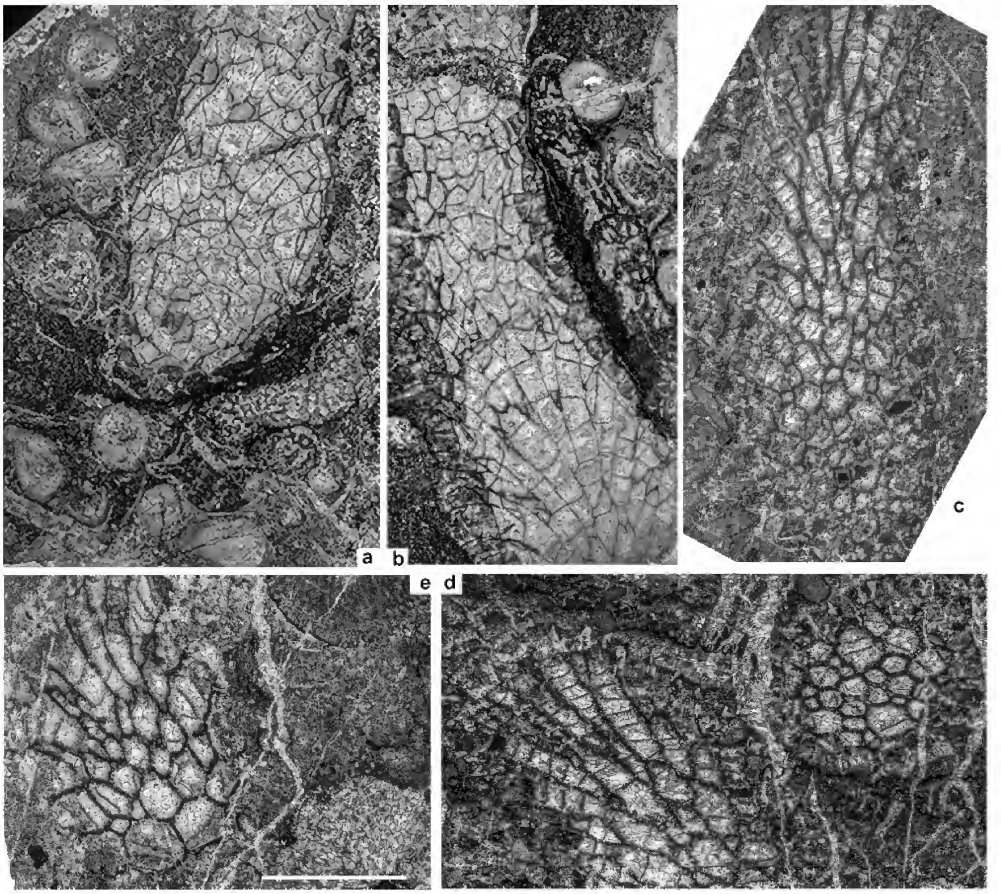

Figure 10. a-b, *Striatopora* sp. A. a, MMF34023a, oblique TS, in association with *Syringopora* sp. and *Amphipora* sp.; b, MMF34023b, oblique LS, in association with *Syringopora* sp. and *Amphipora* sp. c-e, *Striatopora* sp. B.; c, MMF34007b, oblique LS; d, MMF34007a, TS + oblique LS; e, MMF33962a, TS. Abbreviations referring to Figure 7 caption; a-b from C1627, c-d from C1518, e from C1591; all at same magnification, scale bar = 5 mm.

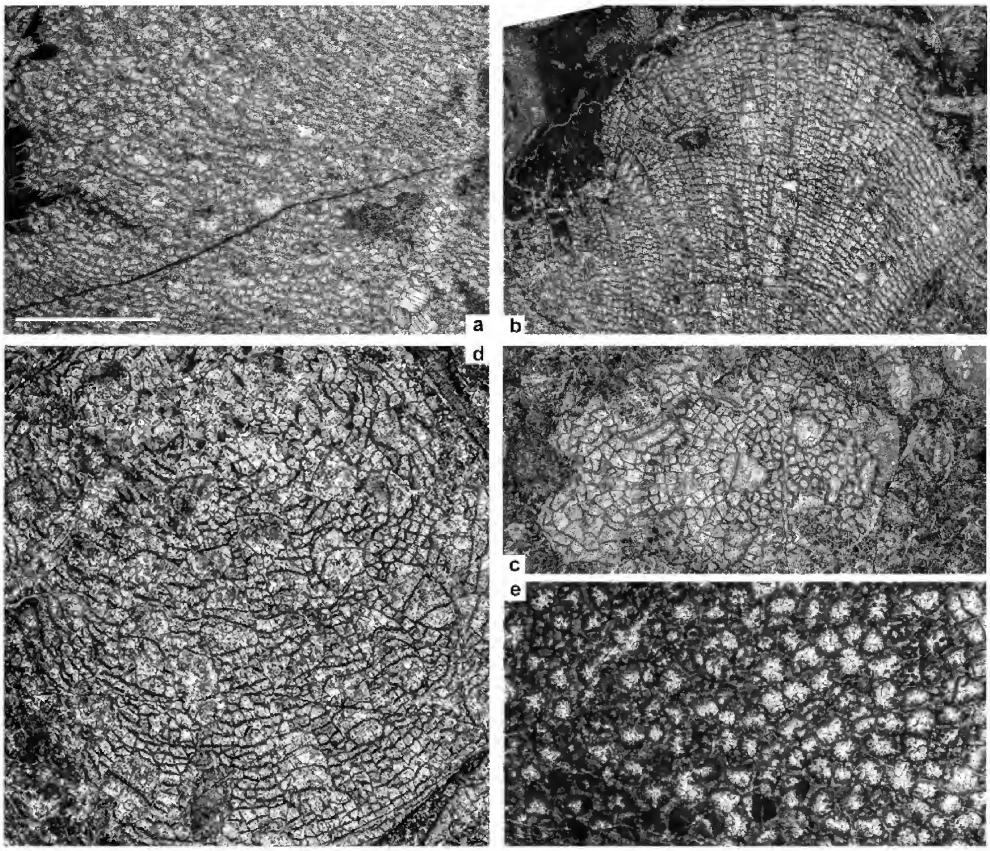

Figure 11. a-b, *Pseudoplasmopora follis* (Milne-Edwards and Haime, 1851). a, MMF34088c, TS; b, MMF34088a, LS. c-d, *Pseudoplasmopora* sp. cf. *P. heliolitoides* (Lindström, 1899). c, MMF34018a, TS; d, MMF34021a, TS. e, Favositidae gen. et sp. indet. MMF34062b, TS. Abbreviations referring to Figure 7 caption; a-b from C1634, c-d from C1627, e from C1600; all at same magnification, scale bar = 5 mm.

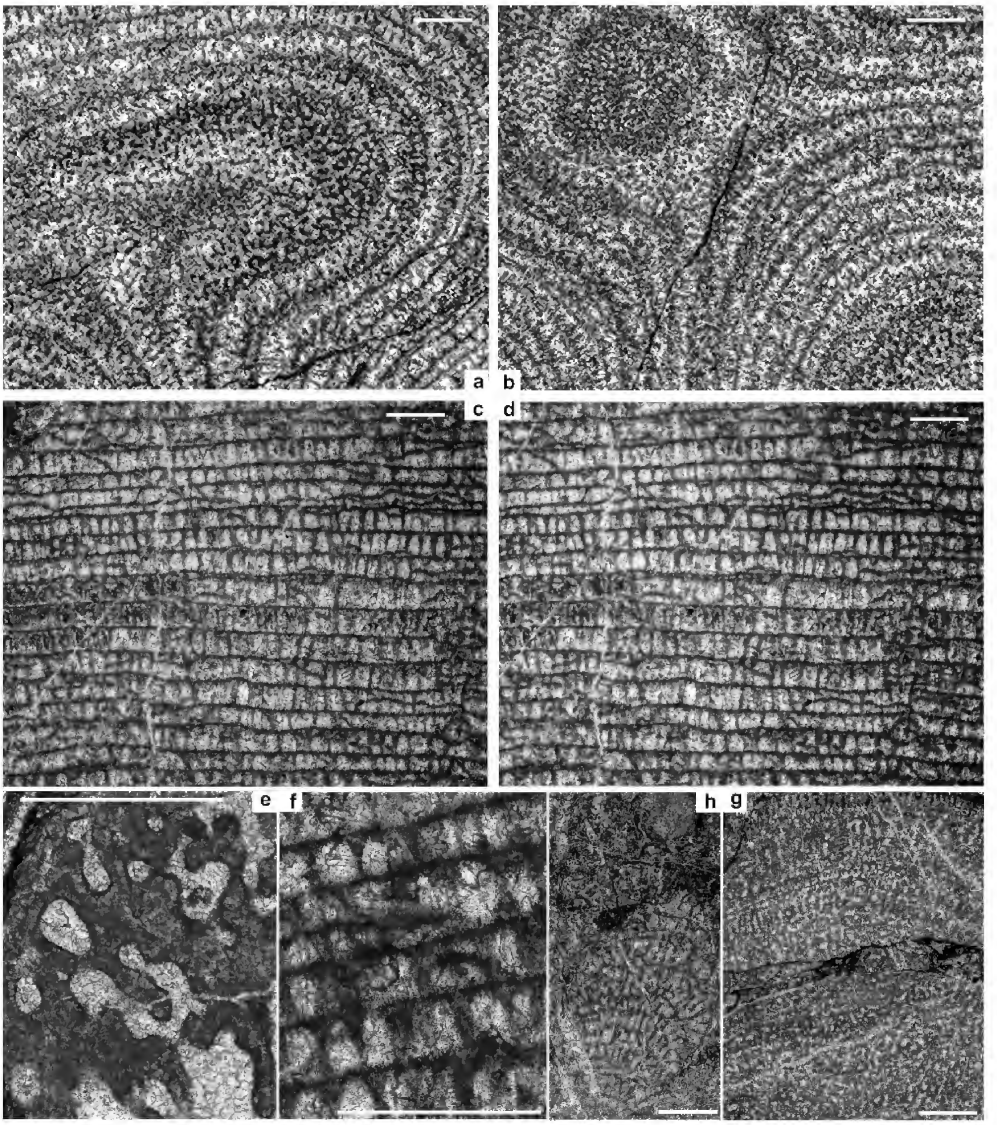

Figure 12. a-f, *Schistodictyon webbyi* sp. nov. Holotype, a-b, e, MMF34017b, tangential sections; c-d, f, MMF34017a, longitudinal sections. g, *Syringostromella* sp. MMF34024d, longitudinal section. h, *Clavidictyon*? sp. MMF34018a, longitudinal section; all from C1627; scale bars = 1 mm.

Plant, Invertebrate and Pathogen Interactions in Kosciuszko National Park

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Kosciuszko National Park is the largest protected area in NSW and the only reserve in the State containing alpine vegetation. Diseases and pests of plants in the park are poorly known and, until recently, were thought to be benign and rare because of the cold climate. Surveys after the 2003 fire that burnt about 70% of the park detected dieback in both unburnt and regenerating burnt shrubs and trees. Since then, 36 species of *Phytophthora* have been identified in the park. Some perhaps do not persist but at least two (*P. gregata* and *P. cambivora*) are affecting the survival of two native shrub species. The fungus *Armillaria luteobubalina* also has been isolated from dying shrubs. Many insects and a mite have been identified on shrubs and trees in poor health. Although some of the invertebrate and disease syndromes are likely to be cyclic and natural, their interaction with climate change and invasive species may interrupt such cycles. One threatened species, *Eucalyptus saxatilis*, is in severe decline at some sites because of insect herbivory perhaps in conjunction with unusual climatic events. Climate change is also likely to allow the invasion or expansion of non-native and native pathogens and invertebrates with unpredictable consequences.

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Keywords: *Armillaria,* climate change, dieback, mites, moth larvae, *Phytophthora.*

INTRODUCTION

Kosciuszko National Park (KNP) is the largest protected area in New South Wales. Most of the Park is above 1000 m above sea level and it contains the only examples of alpine vegetation in the State (Fig. 1). Steep environmental gradients and a diversity of habitat mean that KNP has a rich flora containing many endemics (Doherty et al. 2015). The flora and vegetation of KNP face many threats. The potential impacts of climate change, introduced plants and vertebrate animals are well known (Department of Environment and Conservation 2006) but the effects of pathogens and herbivorous invertebrates (both native and introduced) have received little attention.

Perhaps the best known invertebrate herbivores in KNP are two native moth species, the alpine case moth, *Lomera caespitosae* (Lepidoptera: Psychidae) and the alpine grass grub *Oncopera alpina* (Lepidoptera: Hepialidae) that, in their larval stage, graze on the foliage and roots, respectively, of the dominant grasses in high elevation vegetation (Parida et al. 2015). Extensive patch death of grass is episodic due to outbreaks of these species but is thought to facilitate the establishment of native forbs by limiting the dominance by *Poa* species (Williams et al. 2014). Even this apparently natural process may be threatened by climate change (Parida et al. 2015).

Early reports of invertebrate damage to trees in the Kosciuszko region were associated with threats to production forestry. Phasmatids caused defoliation and death in alpine ash and mountain ash forests in the 1950s and 60s in New South Wales and Victoria (Campbell and Hadlington 1967). Outbreaks of

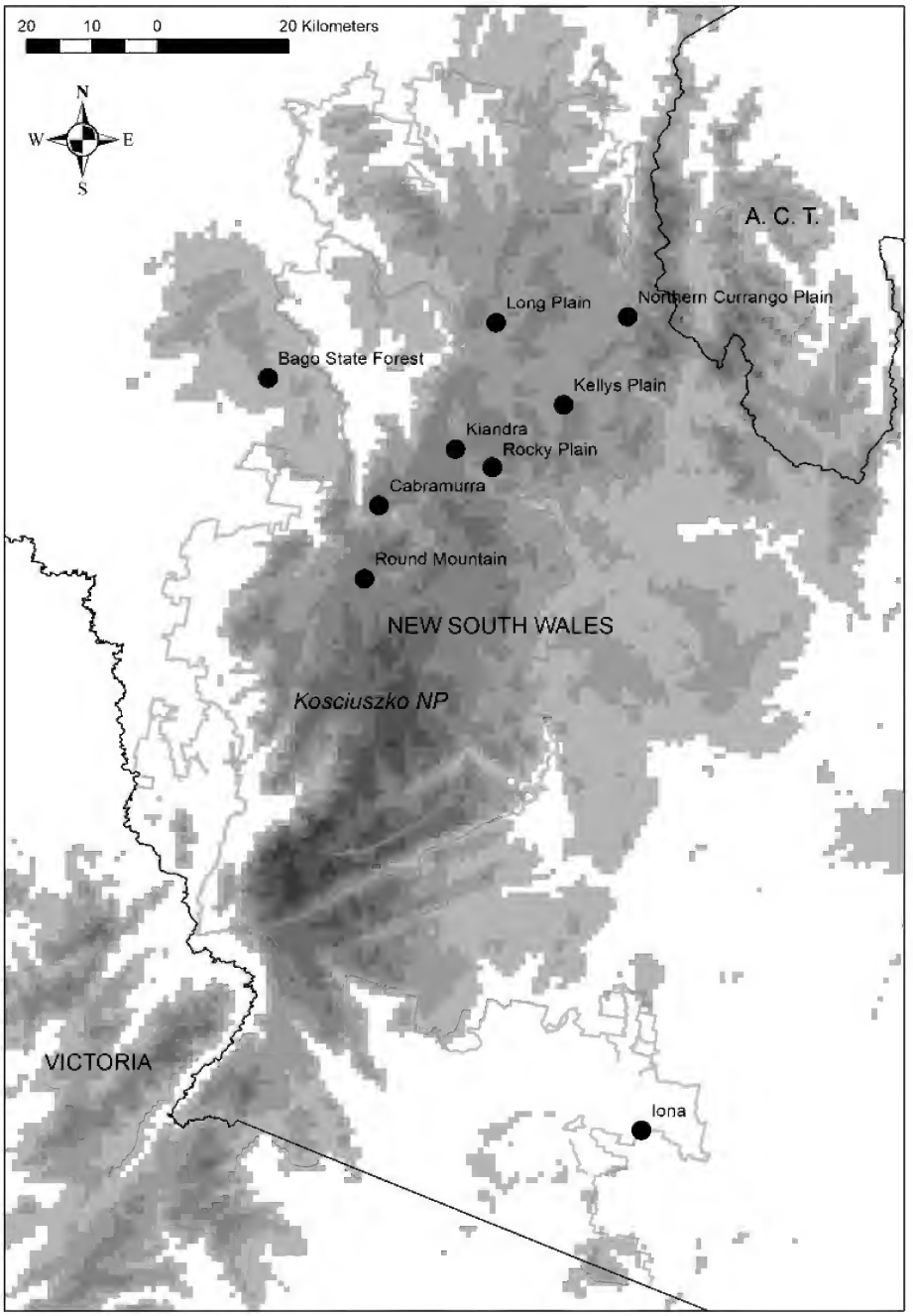

Fig. 1. Location of sites mentioned in the text. Kosciuszko National Park is shown with a red border. Elevation below 1000 m is shown in white with light to dark shades divided into 200 m elevation bands above that.

the alpine stick insect, *Didymuria violescens* are still recorded from time to time in KNP, although their effect on tree survival does not appear to be significant. The outbreaks are associated with cool, wet summers when multiplication exceeds the control exerted by predators and parasites (Readshaw 1965). In the 1980s, patch death of snow gum was recorded, especially in the vicinity of ski resorts. This was attributed at the time partly to the effects of cambial feeding by the larvae of wood moths (Lepidoptera: Cossidae: Endoxyla spp.) (Shields 1993). Again, these dieback events are likely to represent periodic natural disturbance to the native vegetation of KNP and may be associated with a range of stresses such as drought and hydrological change, that cause host trees to be more susceptible to invertebrate attack. Dieback events in eucalypts in forests and farmland have been widely studied and reported over the past 40 years and various hypotheses have been advanced regarding their cause. These include the roles of climate variation and physiological stress, outbreaks of leaf-, sap- and cambial-feeding insects and of gall-inducing arthropods and the effects of pathogens (e.g. Morrow & LaMarche 1978; Old et al. 1981; White 1986; Landsberg & Wylie 1988; Farrow 1999).

In 2013, an Australia-wide survey of *Phytophthora* species led for the first time to the testing of soils in the Alps to determine if *Phytophthora* species were present (Burgess et al. 2017). *Phytophthora* is a genus of class Oomycetes (water moulds), many species of which are pathogenic. One species, *P. cinnamomi*, has caused permanent change in numerous plant communities across southern Australia (Cahill et al. 2008). It is the only genus amongst Oomycetes and only one of three plant pathogens included in the 100 worst invasive alien plant pathogens in the Global Invasive Species Database (Lowe et al. 2000). A total of 33 *Phytophthora* species were detected through High Throughput Sequencing (HTS) using environmental DNA (eDNA) extracted from soil in KNP, about half of which are considered to be native to Australia (Burgess et al. 2017). Detection using HTS is not confirmation of a living organism as eDNA can persist in soil when the organism has died out (Carini et al. 2016). However, the isolation of *P. cambivora* from the roots of dying plants of the endemic alpine shrub *Nematolepis ovatifolia* in 2014/15 suggested the involvement of *Phytophthora* species in poor plant health (Green 2016).

Armillaria luteobubalina is a native fungus that causes root rot and wood decay of a wide range of species. Its effects on native plants and plant communities are poorly known. Although it can be readily identified from its fruiting bodies, these are not always produced. White mycelial growth on lower stems and decaying wood is often the only sign of its presence. It was first recorded in KNP in 2002 (Atlas of Living Australia; accessed 22 March 2018) but its effects on native vegetation are unknown and it is unclear whether it is native to KNP.

After wildfires that burnt about 70% of KNP in 2003, regeneration of some shrub-dominated communities was slower than expected (McDougall et al. 2015) and this was attributed in part to invertebrate herbivory and damage. This observation led to a range of studies on dieback, invertebrates and pathogens. It became clear that dieback was not restricted to regenerating burnt areas. For instance, an endangered species, *Eucalyptus saxatilis* (Suggan Buggan mallee), a small tree restricted to rocky outcrops in remote dry eucalypt forest in the Upper Snowy region of southern New South Wales and adjacent parts of northern Victoria (Brooker & Kleinig 1999), was found to be in poor health at two of its populations, yet was long unburnt. Symptoms included the loss of adult foliage, presence of dead limbs and the production of epicormic regrowth that was heavily damaged by invertebrate feeding. Numerous trees at both sites had also died.

In this paper, we present the findings of our surveys, and other observations of dieback in KNP. We conclude with management and research recommendations.

MATERIALS AND METHODS

***Phytophthora* species**

Alps Walking Track

Targeted surveys for *Phytophthora* species along the Australian Alps Walking Track were conducted between December 2014 and April 2015. Eighty-nine soils were collected: 47 in KNP, 23 in Victoria and 19 in the ACT. At each site sample, about 300 g of soil and root material was collected beside the walking track using a trowel by scraping away the surface litter and collecting soil and roots from the rhizosphere. Sampling was done beneath plants in poor health if present. The trowel was sprayed with methanol after each sample. Samples were sent to the Royal Botanic Gardens Sydney (RBG) for the isolation and identification of *Phytophthora* species.

Pimelea bracteata

Pimelea bracteata is endemic to NSW and grows in wetlands and along waterways in northern KNP and nearby areas. Poor health in most populations of this subalpine shrub first was noticed in 2013. Possible

causes of dieback were investigated. Initial symptoms included chlorosis of lower leaves and witches broom at the stem apices, which were observed in all size classes. Repeat visits to one site (Rocky Plain) indicated that affected plants did not resprout from the base; i.e. recovery did not appear to occur once symptoms had progressed. Samples of roots of dying plants at four sites in KNP (Kiandra, northern Currango Plain, Rocky Plain and Kellys Plain) were collected in November 2016 and sent to the RBG for testing for root pathogens. After inconclusive results from these tests (with three samples testing positive for an unidentified *Phytophthora* species), symptomatic plants were examined more closely. Roots were found to be largely unaffected when the top of the plant was dead or dying. Plant collars (tissue between the roots and stems at the soil surface), on the other hand, were typically necrotic and often quite rotten. For this reason, subsequent sampling was of plant collars. Ten collars from plants at the Kellys Plain site and one from the adjoining Bago State Forest were sent to the RBG for the isolation of *Phytophthora* species.

Phytophthora detection

A dual baiting system of blue lupins (*Lupinus angustifolius*) and a *Phytophthora* selective Medium (PSM) were used to isolate *Phytophthora*. The base PSM consisted of 15% clarified V8 juice (Campbells V8 vegetable juice; Campbell Grocery products Ltd., Norfolk, UK) with a pH adjusted to 7 using 0.1 g/L CaCo3 and 2% Grade A Agar (Becton, Dickenson and Company, Sparks, MD, USA). Rifamycin, Hymexazol and Pimaricin were added to the base PSM at 10, 50 and 5 ppm, respectively. Soils and roots from each sample were mixed in a zip-lock plastic bag and flooded with de-ionized water. Pre-germinated lupins and PSM plugs were added to the soil-water slurry and incubated for 7 days at 22°C with three replicates of each baiting system per sample. Two separate methods were used for *Phytophthora* identification: microscopic examination of colony morphology from the PSM baits and total DNA extraction from the lupin radicles followed by PCR with *Phytophthora* specific primers developed by Schena et al. (2008) that targeted the ras-related protein (Ypt1) gene region. Post incubation, the PSM plugs were rinsed with de-ionized water and incubated on PSM for 3 days at 22°C for identification by gross colony morphology at 10x magnification under a light microscope. Total DNA was extracted from the distal 10mm of the lupin radicles using the FastDNA Kit (Q-biogene Inc., Irvine, California, USA) according to the manufacturer's instructions. Species identification was based on *Phytophthora* specific PCR (Schena et al. 2008) and sequencing of the nuclear ribosomal DNA, internal transcribed spacer 1 and 2 (ITS) and BLAST analysis in NCBI's GenBank. The ITS and Ypt1 were amplified using primer sets and PCR conditions described in Cooke et al. (2000) and Schena et al. (2008), respectively. Amplicons were purified using ExoSAP-IT (USB Corporation Cleveland, Ohio, USA) according to the manufacturer's instructions and sent to the Ramaciotti Centre for Gene Function Analysis at the University of NSW where DNA sequences were determined using an ABI PRISM 3700 DNA Analyser (Applied Biosystems Inc., Foster City, California, USA).

Armillaria luteobubalina

White mycelial growth was observed on a range of plant species in the vicinity of Round Mountain and Long Plain in 2014, and was suspected to be *A. luteobubalina*. The vegetation in the Round Mountain area was generally in poor health, although this may have been in part because the area had been burnt more frequently in recent times than similar vegetation elsewhere in the park. Samples of wood from the lower stems of *Grevillea australis, Phebalium squamulosum, Oxylobium ellipticum* and *Eucalyptus pauciflora* (Round Mountain) and *Eucalyptus lacrimans* (Long Plain) were sent to the RBG to test for the presence of *A. luteobubalina* (see test methods below). The subspecies of *P. squamulosum* in this area is regarded as intermediate between *P. alpinum* and *P. ozothamnoides* (Wilson 2013).

Armillaria detection

Armillaria detection was based on the multiplex PCR methods described in Guglielmo et al. (2007, 2010). Total DNA was extracted from wood and root tissues using a modified version of FastDNA Kit (Q-biogene Inc., Irvine, California, USA). The modification substituted the FastDNA Kit extraction buffer with Qiagen Inhibitex Buffer (Qiagen Inc., Germantown, Maryland, USA, Cat # 1080771) as per Guglielmo et al. (2007, 2010). Species identification was based on sequencing of the nuclear ribosomal DNA, internal transcribed spacer 1 and 2 (ITS) and BLAST in NCBI's GenBank. The multiplex PCR and ITS were amplified using primer sets and PCR conditions described in Guglielmo et al. (2007, 2010) and Gardes and Bruns (1993), respectively. Amplicons were purified using ExoSAP-IT (USB Corporation Cleveland, Ohio, USA) according to the manufacturer's instructions and sent to the Ramaciotti Centre for Gene Function Analysis at the University of NSW where DNA sequences were determined using an ABI PRISM 3700 DNA Analyser (Applied Biosystems Inc., Foster City, California, USA).

Invertebrates

Shrub dieback

Investigations of the role of invertebrates in the dieback of four montane and subalpine shrub species were made between December 2013 and March 2014. Six sites were established among vigorous and dieback-affected communities of *Cassinia monticola, Ozothamnus cupressoides* (Kiandra area) and *Acacia obliquinervia* (Cabramurra area) to compare the invertebrate assemblages present. Plots of 100 x 10 m were randomly positioned within each site to standardise the sampling area. Observations of dieback symptoms were also made from other areas within KNP. Multiple methods were used for collecting invertebrates of various habits and behaviours (e.g. diurnal, nocturnal and flying): sweep-netting; beating trays; hand collecting; and UV light trapping. Collecting was performed at each site for one day- and night-time period during February and March 2014. Collecting by hand, sweep net, or beating tray was performed at multiple times during the day, with the UV light trap operating prior to and post sundown for approximately 2.5 hours. Evidence of invertebrate activity (e.g. feeding damage on foliage, larval and pupal case presence) was also documented. Rearing of larvae to their adult stage was performed to aid identification processes.

Invertebrate identification was performed to genus/species level where possible through use of keys, other literature sources (e.g. Common 1990; CSIRO Division of Entomology 1991) and through consultation with practised taxonomists. Voucher specimens were made available to the Australian National Insect Collection, CSIRO, Canberra, ACT. Some invertebrate groups, such as spiders (Arachnida: Araneae) and ants (Hymenoptera: Formicidae) were excluded during collecting due to their predatory habits and being unlikely to feed on plants. Life history information, obtained from available literature sources, was used to assess whether identified invertebrates were likely to cause damage to plants (e.g. through herbivory). Samples of the mites found on *Pimelea bracteata* were sent to Danuta Knihinicki (NSW Department of Primary Industries, Orange) for confirmation of the preliminary identification.

Eucalyptus saxatilis

Insect and foliage samples from *Eucalyptus saxatilis* at the Iona population in KNP north-west of Delegate were collected in December 2016 and February 2017 to identify the invertebrates responsible for the defoliation of juvenile and adult leaves.

RESULTS

***Phytophthora* species**

With the species detected by Burgess et al. (2017) and unpublished data of one author (IK), 36 *Phytophthora* species have now been recorded in KNP (Table 1).

Alps Walking Track

Of the 89 soils collected along the Australian Alps Walking Track, only one (in the ACT) was found to contain a *Phytophthora* species (*P. cryptogea*). This was in contrast to the 40 KNP soil samples tested using HTS (Burgess et al. 2017), which each contained between one and 14 *Phytophthora* species. Fifty-eight of the soil samples from the walking track contained at least one *Pythium* species, which included *P. macrosporum*, *P. undulatum*, *P. mamillatum* and undescribed taxa. *Pythium* is a genus in the same class as *Phytophthora*. Many species are pathogenic but little is known about their effect in native vegetation in Australia (e.g. Marks and Kassaby 1974).

Pimelea bracteata

Plants of *Pimelea bracteata* in poor health throughout northern KNP were found to have abnormal leaf growth at the stem apices, commonly called witches broom (in addition to the symptoms described above associated with *Phytophthora* infection). One of the authors (RF) identified minute eriophyid mites among the deformed leaves and stems and a literature search revealed that a species of eriophyid mite, *Aceria pimeliae*, induces galling on several species of *Pimelea* in New Zealand (Manson 1984). Eriophyid mite species induce witches broom galls on a wide range of plant species and are generally host specific.

Three of five initial samples taken from the roots of dying *Pimelea bracteata* at six sites in KNP tested positive for *Phytophthora* but the species could not be identified. Subsequent sampling of collars enabled the isolation of two pathogens. Of 10 samples from plants in Kellys Plain (KNP), six tested positive for *P. gregata*, and *P. cryptogea* was isolated from the single Bago State Forest plant. The collar rot symptoms were observed in plants at all sites (Fig. 2).

Armillaria luteobubalina

Armillaria luteobubalina was detected in the shrubs *Grevillea australis*, *Oxylobium ellipticum*, and *Phebalium squamulosum* but not in the trees *Eucalyptus pauciflora* and *E. lacrimans*.

Table 1. List of *Phytophthora* species detected in KNP through traditional baiting isolation techniques (B) and High Throughput Sequencing (S). Source: TB (Burgess et al. 2017); KG (Green 2016); IK (Ihsan Khaliq, unpublished data).

Phytophthora species	Isolation	Vegetation	Source	Elevation range (m)
P. amnicola	S	Montane forests	TB	1060 – 1320
P. arenaria	S	Montane forests	TB	740 – 1290
P. bilorbang	S	Montane forest	TB	1405
P. boodjera	S	Widespread	TB	425 – 2125
P. cactorum	B, S	Widespread	TB; IK	1340 - 1820
P. cambivora	B	Alpine heath	KG	1830
P. capensis	S	Widespread	TB	860 – 1140
P. chlamydospora	B, S	Widespread forests, subalpine woodland	TB; IK	980 - 1140
P. cinnamomi	S	Widespread	TB	455 – 2125
P. citricola complex	S	Montane forests, alpine vegetation	TB	1405 – 2065
P. cryptogea	B, S	Widespread	TB; IK	425 – 1580
P. elongata	B, S	Widespread	TB; IK	565 – 2000
P. europea complex	S	Subalpine and alpine areas	TB	1460 – 2065
P. fallax	B	Widespread	IK	425 – 1700
P. gonapodyides	B	Subalpine and alpine areas	IK	1660 - 1870
P. gregata	B, S	Subalpine wetland, montane forests	TB; IK	1280 – 1460
P. inundata	S	Montane forests, subalpine woodland	TB	1220 – 1320
P. litoralis	S	Montane forests, subalpine woodland	TB	980 – 1405
P. moyootj	S	Montane wetland	TB	1405
P. multivora	S	Widespread	TB	425 – 2065
P. nicotianae	S	Widespread	TB	860 – 2000
P. niederhauserii	S	Widespread	TB	500 – 2065
P. oreophila	B	Alpine herbfield	IK	1830
P. palmivora	S	Montane forests	TB	980 – 1220
P. parvispora	S	Montane forest	TB	980
P. pseudocryptogea	B, S	Widespread	TB; IK	425 – 1700
P. riparia	S	Montane forest	TB	980
P. rosacearum	S	Montane forest	TB	980
P. sp cyperaceae	S	Montane forest	TB	800
P. sp nov 1B	S	Montane forest	TB	1405
P. sp nov 2A	S	Montane forest	TB	740
P. sp nov 6A	S	Montane forest	TB	980
P. sp nov 9A	S	Montane forest	TB	1280
P. syringae	S	Montane forest	TB	860
P. thermophila	S	Montane forests	TB	425 – 1320
P. versiformis	S	Widespread	TB	455 - 1440

Invertebrates

Shrub dieback

Dieback-affected *Cassinia monticola* plants generally exhibited grey discoloured crowns, and appeared to be shorter with fewer flowers when compared to vigorous communities. The grey discolouration appeared to be largely due to invertebrate-induced herbivory, which exposed a "carcass" of senesced and desiccated branches. Dieback-affected *C. monticola* plants were readily observed in 2014 along the Snowy Mountains Highway, other roads near Kiandra and adjacent areas (e.g. Three Mile Dam, Gooandara Fire Trail and Racecourse Creek). The extent of dieback was variable in these areas, with *C. monticola* plants at the Gooandara Fire Trail site amongst the most severely affected. Many *C. monticola* plants persist at these sites but their health remains poor. Different types of invertebrates were observed at different sites. At Three Mile Dam and Racecourse Creek, the plants exhibited defoliation and there were dense deposits of silk attached between the stems and branches. The silk deposits were associated with the presence of moth larvae of various stages of development. Observations of the behaviour of the larvae in field and laboratory conditions confirmed their role in causing both defoliation and depositing silk. Larvae of varying developmental stages were active at room temperature and attached dense deposits of silk to adjacent leaves, twigs and branches to form cocoons and protect them throughout pupation. Larvae were reared through development to adults, which were identified as a leaf roller *Epiphyas erysibodes* (Lepidoptera: Tortricidae: Archipini) (Ted Edwards, ANIC, CSIRO, pers. comm.) (Fig. 3). Moth larvae were also detected in low numbers within healthy patches of *C. monticola* but were not identified. Dieback-affected *C. monticola* plants at the site near Gooandara Fire Trail were found to be infested heavily with a species of leaf beetle (Coleoptera: Chrysomelidae: Eumolpinae). The beetles were observed feeding on/defoliating the plants throughout the day and initial

Fig. 2. Lesion in the collar of *Pimelea bracteata* (light brown region) with dead tissue above (to the right in the photo) and apparently healthy roots below.

Fig. 3. The larvae of the moth *Epiphyas erysibodes* (Lepidoptera: Tortricidae) on *Cassinia monticola*, showing (left) larval activity (circled in red) and dense silk attached between branches and (right) larva depositing silk threads.

counts recorded 24 beetles occupying a 1 m^2 area. Spot counts of the beetles within a 5 m radius of each of the 5 transect markers recorded a total of 156 individuals with numbers of the beetle reaching 56 at one location. Samples of *C. monticola* foliage and beetles were brought back to the laboratory, where the beetles were further observed to feed on and deplete available foliage. The beetle was identified as *Geloptera jugularis* (Chris Reid, Australian Museum, pers. comm.) (Fig. 4).

Dieback-affected *O. cupressoides* plants exhibited irregular patches of grey discoloured foliage (Fig. 5), black sooty mould on branches and clustering of terminal branchlets, an indication of the presence of a sugar-producing, sap-feeding, scale insects. Reduced growth and high rates of mortality (often estimated to be greater than 80% within a 5 m radius) were also observed. Invertebrate related damage of *O. cupressoides* was noted on most plants in the dieback-affected stands and rarely in healthy stands. The observed damage involved clustering of leaves at the terminal ends of branches. Silk deposits were observed on leaves but were not as dense as those observed in *C. monticola*. Observations in the field indicated that clustering of leaves was associated with soft-bodied scale insects (Hemiptera: Coccoidea) and moth/butterfly larvae. Thirty samples of the clustered terminal branches investigated for the presence of invertebrates revealed male and female mealybugs (Coccoidea: Pseudococcidae) at various stages of development. The mealybugs were identified as belonging to the genus *Dysmicoccus* and were an undescribed species (Penny Gullan, Australian National University, pers. comm.). Attempts to recover and rear moth larvae from *O. cupressoides* foliage samples were unsuccessful. The number of species obtained from the healthy *O. cupressoides* stand was among the highest of all sites investigated. Scarab beetles (Coleoptera: Scarabaeidae) were the most abundant beetles seen on the foliage of dieback-affected *O. cupressoides*.

In a dieback-affected site near Cabramurra, very few surviving *Acacia obliquinervia* individuals were present. The dieback was characterised by extensive defoliation and an almost complete lack of branches on plants. Mortality was estimated to be greater than 95% and there were only a few leaves remaining on the surviving plants. Some individuals had presumably been dead for some time as the branches and trunk were very brittle with the entire plant easily collapsing underfoot. Observations of dieback-affected *A. obliquinervia* stands in the Thredbo region

Fig. 4. The beetle *Geloptera jugalaris* (Coleoptera: Chrysomelidae), found to be responsible for defoliation of dieback-affected *C. monticola* plants.

Fig. 5. Dieback-affected community of *Ozothamnus cupressoides* (grey foliage in the foreground with healthy plants beyond), Kiandra, Snowy Mountains Highway (February 2014).

showed extensive damage from the activities of invertebrate herbivores. Two distinct types of damage were recorded: i) defoliation caused by insects with chewing mouthparts, with characteristic scalloped edges of remaining leaves; and ii) damage of foliage caused by a leaf-skeletonising insect, resulting in rust coloured leaves when senesced.

A number of herbivorous invertebrates specific to *Acacia* were collected in surveys of the healthy *A. obliquinervia* stand. These included the leaf beetles *Calomela ioptera*, *Calomela* sp. (Coleoptera: Chrysomelidae: Chrysomelinae), the Botany Bay diamond weevil *Chrysolopus spectabilis* and other weevils (Coleoptera: Curculionidae). Galls were also commonly observed on plants with wasp larvae extracted from them in the laboratory, but their identity was not determined through rearing to the adult stage. The presence of red spider mites was recorded in both healthy and dieback-affected stands of *A. obliquinervia* near Cabramurra. However, the assessment of dieback-affected *A. obliquinervia* conducted in this study did not reveal many invertebrates that could be considered potentially significant in plant decline nor other evidence of invertebrate damage to plants. Larvae of *Chrysolopus* feed on the roots of *Acacia* species and are reputed to destroy young trees (Hunt et al. 1996). A potential reason for the limited evidence of invertebrate related damage is that the activity at the investigated site had occurred in a previous season. A rarely encountered reticulated beetle (Coleoptera: Cupedidae) was collected in the dieback-affected site and two undescribed moth species were recorded from the surveys of healthy *A. obliquinervia*. The invertebrate responsible for skeletonisation was not determined.

The mite associated with witches broom in *Pimelea bracteata* plants (Fig. 6) was confirmed by Danuta Knihinicki (NSW Department of Primary Industries) to be *Aceria pimeleae*, previously only known from New Zealand, where it causes galling on some *Pimelea* species (Manson 1984). Curiously, witches broom was not observed on *Pimelea pauciflora*, which grows with *P. bracteata* at many sites.

Fig. 6. Witches broom (abnormal leaf growth) on *Pimelea bracteata*, Gurrangorambla Creek, KNP, caused by a mite, *Aceria pimeleae*.

<u>*Eucalyptus saxatilis* dieback</u>

Large numbers of Christmas beetles, *Anoplognathus* spp. (Coleoptera: Scarabaeidae: Rutelinae) were observed grazing on adult foliage and new leaf growth in the crowns of *Eucalyptus saxatilis* in December 2016. Unhealthy trees had produced epicormic shoots but many of these were dead at that time. The February 2017 survey found that the majority of epicormic leaves were heavily damaged by feeding by larvae of the eucalypt weevil, *Gonipterus* sp. (Fig. 7). There was also evidence of minor feeding damage by a range of other species of insect herbivore, including autumn gum moth larvae (*Mnesampela privata*), leaf tier larvae (*Tortricidae* sp.), and gumtree scale (*Eriococcus confusus*, confirmed by RF) plus a few galls induced by various species of gall-wasp (*Chalcidoidea* sp.). Many trees in poor health had been heavily colonised by a species of the plant *Cassytha melantha* (Lauraceae), a genus of hemiparasites that are reliant on their host for growth, and can have negative effects on host growth and survival (e.g. Prider et al. 2009).

Fig. 7. a) *Eucalyptus saxatilis* with dieback at 'Iona' west ridge; b) *Gonipterus* sp. (Australian weevil) adult, c) *Gonipterus* sp. larva, d) *Gonipterus* sp. feeding scars on E. saxatilis leaf.

DISCUSSION

We have identified numerous pathogens and herbivorous invertebrates in KNP in recent years. Several species appear to be associated with poor plant health but some of these are Australian endemics. It is unclear whether such species are native to KNP and, if they are, whether they are part of natural cycles. The information we have collected will form part of a baseline for future assessments of invertebrate and pathogen impacts.

Phytophthora species

Of the 36 *Phytophthora* species identified in KNP so far, only three have been implicated in poor plant health in and near KNP. The most serious appear to be *P. gregata* and *P. cryptogea,* which are affecting *Pimelea bracteata* populations in northern KNP and surrounding areas. Plants of all sizes of this shrub are killed and regeneration is poor or non-existent. *Phytophthora gregata* is of uncertain origin (Jung et al. 2011) while *P. cryptogea* is almost certainly non-native in Australia. Regardless of their origin, the

rapid decline in *P. bracteata* over much of its range is not consistent with a cyclical event. Interactions with climate change and the mite causing witches broom cannot be ruled out.

Only 10 of the 36 *Phytophthora* species were detected using traditional baiting of soil and root material, which promotes production of zoospores. That is, this technique identifies living *Phytophthora* species that are capable of growth and reproduction. In contrast, HTS may detect relic DNA, genetic material that is incapable of producing living organisms (Carini et al. 2016). This means that some of the 32 species detected using HTS may not persist at the sites where the samples were collected.

Phytophthora cambivora is known to infect roots of the endemic alpine shrub *Nematolepis ovatifolia* but is believed to be a contributor to decline rather than a sole cause, climatic events being of more importance (Green 2016). The origin of *P. cambivora* is also uncertain. It is a serious forestry and horticultural pathogen in many parts of Europe and North America (Erwin and Ribeiro 1996; Saavedra et al. 2007; Jung et al. 2013) and has been found to affect horticulture in Australia (e.g. Bumbieris & Wicks 1980). In spite of this, isozyme analysis of isolates from various parts of its range found most variation within Australia (Oudemans & Coffey 1991); an Australian origin for the species would therefore not be untenable.

Phytophthora cinnamomi has not been confirmed from soil / root baiting tests in KNP but it has been detected from elevations above 2000 m using HTS. If it becomes active in KNP, populations of *Xanthorrhoea glauca* could be at risk, as this species is known to be highly susceptible (McDougall and Summerell 2003). A subalpine shrub, *Phebalium squamulosum,* was found to be highly susceptible to both *P. cinnamomi* and *P. cambivora* in glasshouse pathogenicity trials (Rigg et al. 2018). Two species of *Phytophthora* detected in KNP (*P. bilorbang* and *P. cryptogea*) have been implicated in the decline of blackberry (*Rubus anglocandicans*) in Western Australia (Aghighi et al. 2015). If they also affect blackberry populations in KNP, the presence of pathogenic *Phytophthora* species in KNP need not be entirely negative for the Park's values.

Armillaria luteobubalina

Armillaria luteobubalina is a native fungus that causes plant death and contributes to the decay of dead plant material in both horticulture and natural ecosystems. In some natural ecosystems it can have a long and lasting impact (e.g. Shearer et al. 1997). It is best known for its effect on woody plants, especially trees where masses of fruiting bodies may be seen on infected trunks, but it can infect and kill plants from a wide range of families and growth forms including grasses (e.g. Shearer et al. 1998). Although native to Australia, its natural distribution is unknown. General plant health in the Round Mountain area where we detected it is unusually poor. This might be a result of frequent fire but the presence of *A. luteobubalina* there possibly hinders regeneration following defoliation and the death of stems following fire. Further survey for *A. luteobubalina* is recommended so that its distribution and possible role as a driver of vegetation change can be determined.

Invertebrates

Dieback of *Cassinia monticola* was associated with defoliation caused by infestations of an adult leaf beetle, *Geloptera jugularis* (Chrysomelidae : Eumolpinae). Polyphagous and frugivorous eumolpine beetles are recognised as having significant economic importance with genera such as *Colaspis* recorded as garden and crop pests (Jolivet & Verma 2008; Jolivet & Hawkeswood 1992). The larvae of all Eumolpinae are soil-dwelling and are root-feeders (Jolivet & Verma 2008) and can negatively affect plants through feeding at both larval and adult stages. *Geloptera jugularis* is endemic to Australia and known to be common in montane areas of Victoria and has previously been recorded on *Citrus* (Lea 1915; Jolivet & Hawkeswood 1992); however, its full host range or the extent of polyphagy in this genus is unknown. The numbers of adult beetles we recorded (up to 24 per m^{-2}) indicates that *G. jugalaris* has the potential to attain large population sizes and be destructive to *C. monticola* plants through defoliation, as observed in this study. The roles of *G. jugalaris* and other unidentified eumolpine beetles recorded by us as herbivores in KNP warrant attention in future studies.

Infestations of the leaf-rolling moth *Epiphyas erysibodes* on dieback-affected *C. monticola* plants were also identified. *Epiphyas erysibodes* is endemic to Australia and is also host specific to species in the Asteraceae family, being previously recorded from *Olearia ramulosa,* with other members of the genus recorded on other Asteraceae species (McQuillan 1992). While this study recorded only one *Epiphyas* species, there may be a suite of related species or other Tortricidae associated with *C. monticola* and other Asteraceae in KNP (Ted Edwards, pers. comm.). It was clear that this species was causing significant damage to plants in local areas and the impact of this or other related species on *C. monticola* communities in other areas of KNP requires further investigation.

An undescribed species of mealybug in the genus *Dysmicoccus* (Hemiptera: Pseudococcidae) also was found associated with the clustered branchlets of dieback-affected *O. cupressoides*. There have been no previous records of these mealybugs on *Ozothamnus* and the closest species morphologically to *Dysmicoccus* sp. found in this study is *D. banksi,* occurring on various *Acacia* spp. (Penny Gullan, pers. comm.). Mealybugs are sap-sucking insects and damage plants directly by inserting their mouthparts and sometimes also toxic compounds into plant tissue when feeding. Their populations can build rapidly due to high reproductive capacities and multiple generations per year and are often serious pests of plants. The waste product of sap-sucking insects ("honeydew") may further compromise plant health by providing suitable growing conditions for sooty mould fungi. The black sooty deposits observed on dieback-affected *O. cupressoides* plants may be a result of this type of feeding interaction between *Dysmicoccus* spp. or other sap-sucking Hemipterans such as aphids, scale or coccids. Further study is needed to determine whether this condition contributes to dieback in *O. cupressoides* plants.

Chafer beetles (Coleoptera: Scarabaeidae: Melalonthinae) were recorded in surveys from all sites, with the highest number of species obtained from dieback-affected *C. monticola* and *O. cupressoides.* These beetles may be significant as they feed on a wide variety of plants, the adults commonly swarm and defoliate plants en masse, and the root-feeding larvae can occur in very high densities. However, identification was not possible in the current study because of the diversity of the group and the large number of undescribed species.

Invertebrates collected in surveys of *A. obliquinervia* that may have contributed to dieback were the leaf beetles (Coleoptera: Chrysomelidae: Chrysomelinae) and weevils (Coleoptera: Curculionidae). Two species of Acacia leaf beetles from the genus *Calomela* were obtained from the healthy stands of *A. obliquinervia*, with *C. ioptera* being previously recorded from this plant host (Reid 1989). *Calomela* beetles are known to specialise in feeding on *Acacia* with some species known for extensive defoliation of *Acacia mearnsii* (Selman 1979; Hunt et al. 1996; Reid 2006). The Botany Bay diamond weevil *Chrysolopus spectabilis* was also recorded in the survey from the healthy stand of *A. obliquinervia.* Adults and larvae are common on a wide range of *Acacia* species in plantations and natural stands and larvae are alleged to cause the death of young trees (Hunt et al. 1996). Other weevils were also recorded in the survey, but their potential to affect local *Acacia* species is unknown.

The dieback symptoms observed in *A. obliquinervia* were similar in appearance to that caused by outbreaks of the fireblight beetle, *Peltoschema orphana* (Chrysomelidae: Chrysomelinae) on *Acacia mearnsii*. The name given to this beetle refers to the scorched brown appearance of stands of attacked *Acacia*. Outbreaks of fireblight beetle commonly occur in black and silver wattle plantations, and in forests containing large natural stands of these species (Elliott 1978; Elliott et al. 1998). Repeated seasonal defoliation through feeding by *P. orphana* causes heavy mortality to these acacias. There is also anecdotal evidence that outbreaks of *P. orphana* occur in regenerating host acacias after fire events. It was not possible to determine whether leaf beetle species found in this study were directly responsible for the extensive defoliation of *A. obliquinervia* plants as only photographic evidence of activity after feeding events was available. Nevertheless, a number of leaf beetles known to cause extensive defoliation of host plants are present in KNP (e.g. *Calomela* and *Geloptera* spp.), suggesting that future studies on their impact could focus on adult and larval activity in relation to known patterns of seasonal abundance.

Eucalyptus saxatilis is facing pressure from a large number of insect species and a parasitic vine. The species of *Gonipterus* that is consuming its epicormic shoots is also reported to be responsible for defoliation of *Eucalyptus viminalis* in nearby areas of the Monaro leading to the widespread death of host trees (Ross and Brack 2015). These weevils are particularly attracted to epicormic regrowth of juvenile foliage and there was little evidence in *E. saxatilis* that the larvae were feeding on adult foliage. Christmas beetles (*Anoplognathus* spp.) on the other hand were found to be feeding abundantly on new and mature foliage in early summer, and other insect herbivores were recorded on foliage. Outbreaks of insect herbivores are often a consequence of abiotic stresses such as drought (e.g. see the review of Anderegg et al. 2015). Many factors are probably contributing to decline in *E. saxatilis* and a changing climate may further stress plants and facilitate greater pressure from insect herbivores. Monitoring of plant health and insect populations is recommended so that causes and an appropriate management response can be identified. As a precursor to that, a small number of dieback-affected trees were injected with the insecticide imidacloprid in October 2017. The aim of this trial is to investigate whether relieving browsing pressure will allow dieback-affected trees to recover.

Fig. 8. Subalpine vegetation at Kellys Plain, KNP, before (left, December 2015) and after (right, January 2017) extensive death of Poa species caused by moth larvae. The non-native, white-flowered daisy *Leucanthemum vulgare* (ox-eye daisy) colonised the dying grasses more rapidly and in much greater densities than the native forbs that are usually favoured by this disturbance.

Interactions and the future

Although some of the effects of the pathogens and invertebrate herbivores that we recorded may be naturally cyclic, the cycles may be affected by climate change, which could facilitate the introduction of new pathogens and invertebrates or make native plant species more vulnerable to their effects. In addition, invertebrate and pathogen ranges are likely to shift more rapidly than their plant hosts, which will experience movement lags for a variety of reasons (Alexander et al. 2018). This may result in host shifts or changes in the frequency of outbreaks. For instance, in the European Alps, the optimal climatic niche of the larch budmoth, *Zeiraphera diniana* (Lepidoptera: Tortricidae) has shifted in recent decades causing a large reduction in outbreaks (Johnson et al. 2010). Pathogens may also exert pressure beyond their host and lead to cascading effects. In the Rocky Mountains of North America, an exotic pathogen, *Cronartium ribicola,* is causing poor health and death in the treeline species *Pinus albicaulis*, a keystone species that is an important food source for native vertebrates and a facilitator for the growth of other plant species (Tomback and Resler 2007). Widespread death of *P. albicaulis* will therefore have flow on effects and possibly confound expected treeline movement upslope. An increase in the frequency of outbreaks of insect herbivores (e.g. moth larvae (Shields 1993)) feeding on the KNP treeline species *Eucalyptus niphophila* associated with increased climatic stress (e.g. from more frequent drought) could also have cascading effects, including hydrological change (e.g. Costin and Wimbush 1961), and changes to snow accumulation and persistence (Costin et al. 1961).

Natural invertebrate – plant cycles may also be affected by non-native plant introductions. Natural episodic death of *Poa* species in treeless vegetation throughout the Alps associated with two moth species appears to have been hijacked by the invasion of the non-native vascular plant (*Leucanthemum vulgare*), which has invaded large areas of grassland in northern KNP. This daisy grows much faster than most native forbs, regularly produces large quantities of seed and readily colonises bare ground. Its density was found to increase rapidly after extensive grass death from moth larvae (Fig. 8) and its dominance may be leading to further decline in *Poa* cover (McDougall et al. 2018). A reduction in *Poa* cover in grasslands could mean

that future outbreaks of tussock death from native moth larvae will be more restricted and colonisation opportunities for native forbs reduced. In addition, one of the moth species may not be favoured under future climate (Parida et al. 2015).

Because of steep climatic gradients in the Alps, small increases in temperature could lead to large elevational shifts of suitable climatic niche for native and non-native pathogens and invertebrates. For instance, an analysis by Podger et al. (1990) in Tasmania found that disease caused by *P. cinnamomi* is unlikely to occur where mean annual temperature is below 7.5° C and annual mean rainfall is less than 600 mm. In much of KNP, this corresponds to an elevation of about 1300 m, which may explain why persistent populations of *P. cinnamomi* have yet to be detected. However, by 2070, the 7.5°C isotherm may be up to 500 m higher under an intermediate emissions scenario, encompassing all populations of *Phebalium squamulosum*, a species which is especially susceptible to *P. cinnamomi* (Rigg et al. unpublished data). At the same time, the optimal climate for the *Phebalium* is likely to shift upwards. However, its capacity for dispersal is much poorer than *P. cinnamomi* and a demise from disease is plausible. Non-native invertebrates are being recorded in the Australian Alps largely as a result of niche filling (Nash 2013), but a changing climate will allow invasion of a large range of new species. One species that has invaded, the European honey bee (*Apia mellifera*), has reached the alpine area in both Victoria and KNP (Inouye and Pyke 1988, Nash 2013). Changes in pollinator composition could affect plant reproduction in unpredictable ways (Nash 2013). The effects of invertebrates on plants in KNP therefore may not be restricted to herbivory.

The climatic niche of many mountain plant species is expected to contract or disappear in the future under current climate projections. If that occurs, some of the pathogens and herbivorous invertebrates that rely on them may themselves become rare and threatened.

Management and research needs

It will be difficult to limit the spread of soil-borne pathogens along the network of public roads in KNP. Minimising the movement of soil-borne micro-organisms through conventional hygiene measures (e.g. foot scrubbing stations, vehicle wash down, signage, education) is still valuable, as it will also limit the movement of non-native seed. Woodchips produced from areas found to be infested with Armillaria should not be used in other areas for revegetation to prevent its spread. A reduction in the vectors likely to spread pathogens (e.g. pigs, horses, deer) is also wise. Minimising the spread of organisms such as *Phytophthora cinnamomi* to prevent occupation of their full climatic niche will buy time to protect species at risk (e.g. through seedbanking or identification of refugia). *Pimelea bracteata* and *Phebalium squamulosum*, both susceptible to *Phytophthora* species, should be targeted for such actions in the near future.

A severe impediment to managing pathogens and invertebrate herbivores in KNP is the lack of baseline data both in terms of what is native to the park and where they are likely to occur. Such information is rarely available but it is essential for managing change and, in particular, identifying the difference between natural cycles and irreversible change. Where so little is known about threats from pathogens and invertebrates, we recommend a precautionary approach where species are managed by the impact observed rather than whether pathogens and invertebrates are native or introduced. Our studies will provide valuable data for future assessments of poor plant health. Monitoring of plant health, susceptible species populations, pathogen distribution and herbivorous invertebrate populations will assist in identifying when management intervention is required.

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